

Uvas Reservoir

September 2006

WATER UTILITY ENTERPRISE

Santa Clara Valley Water District

Final WATER UTILITY ENTERPRISE REPORT



Rinconada Water Treatment Plant

Santa Clara Valley
Water District

5750 ALMADEN EXPWY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2600
FACSIMILE (408) 266-0271
www.valleywater.org
AN EQUAL OPPORTUNITY EMPLOYER

September 7, 2006

Dear Board Members:

The *Water Utility Enterprise Report, Final September 2006* presents the financial and water supply information that is the basis for the adopted water rates for fiscal year 2006–07. This report documents the rates adopted for fiscal year 2006–07 and updates information provided in the preliminary report, which was filed in March, in conformance with the Santa Clara Valley Water District Act.

Throughout Santa Clara County, the cost of water service is increasing moderately, partly due to the Water District's rising costs to provide service. Consumers may also see higher water bills due to cost increases passed on from their municipal or investor-owned water utility. To keep the cost to consumers reasonable, the Water District strives to keep its own costs to a minimum.

Last year, I announced a new vision for the Water District, "Getting Cleaner, Greener, and Leaner," challenging every employee to work more efficiently while maintaining our high standards. The vision entails striking a balance between expected levels of service and the need to keep water rates affordable.

In response, District staff proposed delaying numerous planned capital improvement projects, using reserves to reduce borrowing needs and cutting overhead expenses.

This year, we are stepping up our efforts to engage the community and are gaining momentum toward achieving the vision. We are looking forward to our first full public review of our 5-year capital improvement plan. We are working with the community to develop a comprehensive Water Resources Management Plan which will attempt to reflect the District's dynamic planning efforts in a format more comparable to city general plans. We continue to work with our customers and stakeholders to address the reliability of our water system infrastructure, including our ability to respond locally to an earthquake or a significant disruption of our imported water supplies caused by a disaster in the Delta. Finally, we are continuing our efforts to become more efficient internally, through our California Awards for Performance Excellence (CAPE) and Baldrige assessments, our work to achieve District-wide ISO certification, and responding to our first District-wide performance audit.

This year's rate projection reflects a range of potential water rates over the next five years depending on the level of service provided. The higher end of the range represents the water rates necessary to fund capital projects and operations costs that would be delayed indefinitely under the rate projection at the low end of the range. The outcomes of the efforts mentioned above will help the District narrow that rate range in the future and chart a course that will best serve the community.

The rates adopted for FY 2006-07 are the same as last year's projection at the lower end of the range and will support the operating and capital budget for the water utility. The adopted FY 2006–07 North County Municipal and Industrial rate for groundwater grew by 3.6 percent to $435 per acre-foot. The adopted agricultural water rate in North County decreased to the South County level of $21.50 per acre-foot. The total adopted treated water charge grew by 4.9 percent to $535 per acre-foot. The adopted rate increases translate to an increase of $0.52 per

month for the typical residence using 1,500 cubic feet of groundwater per month and $0.86 per month for a typical residence being served treated water.

In South County, the rate projection along both the lower and higher ends of the range will result in continued annual revenue shortfalls for several years, associated with groundwater quantity and quality projects, imported water payment increases, and loss of property tax revenues, and reflect a gradual approach to bring revenues and costs into balance. The adopted rate for South County Municipal and Industrial groundwater is $230 per acre-foot, an increase of 7.0 percent. The adopted rate for agricultural water in South County remains at the FY 2005-06 level of $21.50 per acre-foot. The adopted rate increases translate to an increase of $0.52 per month for a typical residence using 1,500 cubic feet of groundwater per month. Prior decisions on rates have reflected the Board's desire to avoid large increases that would have been required to keep revenues and costs in balance.

The attached report also includes historical data on District water supply and demand and describes the benefits of the District's activities that underlie the need for the adopted groundwater charges. The final section discusses the revenue requirements for the upcoming fiscal year and provides financial projections for the next five years.

Sincerely,



Stanley M. Williams
Chief Executive Officer

Water Utility Enterprise Report

Darin Taylor
Senior Project Manager

Linda Louie
Senior Management Analyst

Marty Grimes
Program Administrator

Under the Direction of
Walt Wadlow
Chief Operating Officer
Water Utility

District Board of Directors

Rosemary C. Kamei – District 1
Joe Judge– District 2
Richard P. Santos– District 3
Larry Wilson, Chair – District 4
Gregory A. Zlotnick – District 5
Tony Estremera, Vice Chair – At Large
Sig Sanchez – At Large

Our Mission

The mission of the District is a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner.

Santa Clara Valley Water District Board of Directors



Back row, standing (from left to right): Joe Judge, Tony Estremera, Larry Wilson, Richard Santos
Front row, seated (from left to right): Sig Sanchez, Rosemary Kamei, Gregory Zlotnick.

Rosemary Kamei
District 1

Joe Judge
District 2

Richard P. Santos
District 3

Larry Wilson
District 4

Gregory A. Zlotnick
District 5

Tony Estremera
At Large

Sig Sanchez
At Large

Preface

This is the 35th annual report on the status of the Santa Clara Valley Water District's (District) Water Utility Enterprise. In accordance with Section 26.5 of the District Act, the District annually prepares a written report on its activities to protect and augment its water supplies. As required by the District Act, this report provides information on the present and future water requirements of Santa Clara County, the water supply available to the District, future capital improvement and maintenance and operating requirements, financing methods, and the water charges by zone for agricultural water and nonagricultural water.

Additional information on Board Governance Policies, financial information, and District operations can be found on the District website: www.valleywater.org.

Please email any questions you may have regarding this publication to Darin Taylor, Senior Project Manager at the following e-mail address, dtaylor@valleywater.org.

Table of Contents

1. ADOPTED WATER RATES AND SUMMARY 1

INTRODUCTION 1

ADOPTED WATER RATES FOR FISCAL YEAR 2006–07 2
North County Rate Issues & Analysis 4
South County/Coyote Valley Rate Issues & Analysis 4

SUMMARY 5
Section 2 5
Section 3 5
Section 4 5

2. SANTA CLARA COUNTY WATER REQUIREMENTS AND SUPPLIES 7

LONG-TERM WATER USE TRENDS 7

LONG-TERM WATER SUPPLY OUTLOOK 7

DISTRICT WATER SUPPLIES AND USE 8
Recorded Operations for Calendar Year 2004 11
Estimated Operations for Calendar Year 2005 13
Projected Operations for Calendar Year 2006 13
Imported Water Operations 14
Water Reallocation Agreement 14
Water Banking 14
Water Exchanges 15
Water Transfers 15

3. BENEFITS AND SERVICES PROVIDED BY THE DISTRICT 17

ENDS POLICY E-2 17
Water Quality Protection 17
Treated Water Operations 17
Hydrologic Data Management 18
Surface Water Transportation and Storage 18
Imported Water 18
Resolution of Bay-Delta Issues: (CALFED Bay-Delta Program) 19
Banking Available Supplies for Future Use 20
Managing Central Valley Project and State Water Project Contract Issues 20
Water Use Efficiency: Water Conservation 21
Managing Groundwater Recharge 24
Long-Term Planning for Water Supply 24
Water Supply Augmentation 26
Resource Protection 27

Table of Contents continued . . .

Nitrate Management 27
Perchlorate 28
Groundwater Monitoring Improvements 28
Groundwater Guardian 29
Underground Storage Tank Fuel Cleanup Program 29
Solvents and Toxics Liaison Program 29
Well Ordinance Program 29
HAZMAT Emergency Response Program 30
Urban Runoff Program 30
Water Use Efficiency: Water Recycling and Desalination 30
Flood Protection and Stream Stewardship Program 34

ENDS POLICY E-3 34
Stream and Watershed Management 34

ENDS POLICY E-4 35
Office of Communications 35
Government Relations Unit 35

CAPITAL IMPROVEMENTS 36

4. FINANCIAL OUTLOOK FOR THE WATER UTILITY ENTERPRISE 41
INTRODUCTION 41

REVIEW OF DISTRICT'S FINANCES FOR FISCAL YEARS 2004–05, 2005–06, AND 2006–07 41
Fiscal Year 2004–05 42
Fiscal Year 2005–06 42
Fiscal Year 2006–07 43
Financing and Bond Ratings 43

OVERVIEW OF LONG-TERM CAPITAL AND OPERATING PLANS 43

LONG-TERM FUNDING APPROACH FOR THE WATER UTILITY 44

NORTH COUNTY (ZONE W-2) FINANCES 49

SOUTH COUNTY/COYOTE VALLEY (ZONE W-5) FINANCES 51

Tables and Figures

TABLES

TABLE 1-1 SUMMARY OF WATER CHARGES 1

TABLE 2-1 WATER USE FOR CALENDAR YEARS 2004 THROUGH 2006 11

TABLE 2-2 ANNUAL WATER SUPPLY AND DISTRIBUTION FOR CALENDAR YEARS 2004 THROUGH 2006 12

TABLE 2-3 DISTRICT WATER BANKING FOR CALENDAR YEARS 2004 THROUGH 2006 14

TABLE 2-4 WATER TRANSFERS FOR CALENDAR YEARS 2004 THROUGH 2006 15

TABLE 3-1 CAPITAL IMPROVEMENT PROJECTS —FISCAL YEARS 2005–06 TO 2010–11 38

TABLE 4-1 OVERVIEW OF WATER UTILITY REVENUE REQUIREMENTS 42

TABLE 4-2 CAPITAL IMPROVEMENT PROJECTS FUNDING SOURCES FISCAL YEARS 2005–06 THROUGH 2010–11 45

TABLE 4-3 LIST OF CAPITAL PROJECTS POSTPONED INDEFINITELY 47

TABLE 4-4 FIVE-YEAR WATER UTILITY PLAN 48

TABLE 4-5 OVERVIEW OF NORTH COUNTY FINANCES 49

TABLE 4-6 OVERVIEW OF SOUTH COUNTY/COYOTE VALLEY FINANCES 52

FIGURES

FIGURE 1-1 FIVE-YEAR RATE PROJECTION 6

FIGURE 2-1 NORTH SANTA CLARA COUNTY WATER USE ZONE W-2 9

FIGURE 2-2 SOUTH SANTA CLARA COUNTY/COYOTE VALLEY WATER USE ZONE W-5 9

FIGURE 2-3 NORTH SANTA CLARA COUNTY WATER SUPPLY ZONE W-2 10

FIGURE 2-4 SOUTH SANTA CLARA COUNTY/COYOTE VALLEY WATER SUPPLY ZONE W-5 10

Tables and Figures continued…

FIGURE 3-1 ANNUAL WATER SAVINGS FROM CONSERVATION PROGRAMS 21

FIGURE 3-2 RECYCLED WATER USED IN SANTA CLARA COUNTY 31

FIGURE 4-1 WATER ENTERPRISE FIVE-YEAR PROGRAM—PROJECTED USES OF FUNDS 44

FIGURE 4-2 FIVE-YEAR RATE PROJECTION 46

FIGURE 4-3 FISCAL YEAR 2006–07 NORTH COUNTY WATER UTILITY PROGRAM REQUIREMENTS AND FINANCING SOURCES 50

FIGURE 4-4 SOUTH COUNTY/COYOTE VALLEY CUMULATIVE REVENUE SURPLUS/SHORTFALL PROJECTION 52

FIGURE 4-5 FISCAL YEAR 2006–07 SOUTH COUNTY/COYOTE VALLEY WATER UTILITY PROGRAM REQUIREMENTS AND FINANCING SOURCES 53

Appendices

APPENDIX A: WATER UTILITY RATE COMPONENTS AND ADOPTED RATES A-1

TABLE A-1 ADOPTED WATER RATE COMPONENTS FOR FISCAL YEAR 2006-07 ..... A-2

TABLE A-2 ADOPTED WATER CHARGES FOR FISCAL YEAR 2006-07 ..... A-3

APPENDIX B: DESCRIPTION OF WATER UTILITY REVENUE SOURCES, COST CENTERS, AND RESERVES B-1

PRICING POLICY B-2

WATER CHARGES B-2

PROPERTY TAXES B-2

DEBT FINANCING B-2

WATER UTILITY RESERVES B-3

WATER UTILITY ZONES B-3

WATER UTILITY COST CENTERS B-3

RESOLUTION 99-21: ADOPTING WATER UTILITY TAXING AND PRICING POLICY AND RESCINDING RESOLUTION NO. 96-82 ..... B-5

FUND BALANCE RESERVES B-11

STAFF-PROPOSED REVISION TO RESERVE POLICY B-17

APPENDIX C: ACRONYMS AND MAPS C-1

ACRONYMS C-2

WATER CONVEYANCE, TREATMENT & DISTRIBUTION SYSTEM C-3

WATER UTILITY ZONES C-4

GROUNDWATER SUBBASINS AND MAJOR RECHARGE SYSTEMS C-5

1. ADOPTED WATER RATES AND SUMMARY

INTRODUCTION

The mission of the Santa Clara Valley Water District (District) is a healthy, safe and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective and environmentally sensitive manner. The District's core businesses include flood protection and stream stewardship as part of its watershed operations, and water supply under the Water Utility Enterprise. The Water Utility Enterprise provides a safe and reliable water supply to the county's nearly 1.8 million residents. The District's Water Utility budget and rate strategies for fiscal year (FY) 2006–07 are designed to provide revenues to pay for the Water Utility's operating and capital program.

Table 1-1 shows the water rates in fiscal years 2003–04, 2004–05 and 2005–06. The final column contains the adopted rates for FY 2006–07, which are in accordance with the pricing policy described in Appendix B.

TABLE 1-1
Summary of Water Charges

(Dollars Per Acre-Foot, $/AF)

	2003–04	2004–05	2005–06	Adopted 2006–07
Zone W-2 (North County)				
Basic User Charge	375.00	405.00	420.00	435.00
Treated Water Surcharge				
Contract	85.00	90.00	90.00	100.00
Noncontract*	45.00	50.00	50.00	60.00
Zone W-2 (North County)				
Total Treated Water Charge				
Contract	460.00	495.00	510.00	535.00
Noncontract*	420.00	455.00	470.00	495.00
Zone W-2 (North County)				
Groundwater Charge				
Municipal & Industrial	375.00	405.00	420.00	435.00
Agricultural	37.50	40.50	42.00	21.50
Net Agricultural (With Mobile Lab & INAAP Discounts)	33.00	34.50	34.50	14.00
Zone W-5 (South County/Coyote Valley)				
Groundwater Charge				
Municipal & Industrial	160.00	200.00	215.00	230.00
Agricultural	16.00	20.00	21.50	21.50
Net Agricultural (With Mobile Lab & INAAP Discounts)	11.50	14.00	14.00	14.00
Recycled Water Charges				
Municipal & Industrial	100.00	125.00	156.00	195.00
Agricultural	25.00	31.00	39.00	40.50

***** Currently, non-contract water is offered only from the Rinconada Water Treatment Plant. The Board adopted this recommendation for FY 2006–07. However, non-contract deliveries will likely be limited during future construction periods.

ADOPTED WATER RATES FOR FISCAL YEAR 2006–07

The District's major sources of revenue are from the imposition of charges on groundwater and from contracts for the sale of treated surface water produced by its three treatment plants. The District also receives revenue from property tax, interest earnings, grants, capital reimbursements and other sources. The District assesses the need for groundwater charges annually and, in accordance with state law, prepares this report to describe the activities undertaken to provide a water supply, along with the associated capital, maintenance, and operating requirements. The report also describes the financing methods and adopted water charges for zones of benefit established by the District Board of Directors.

In response to a number of external challenges, the CEO established and the Board affirmed a vision of "Getting Cleaner, Greener, and Leaner." The vision entails striking a balance between expected levels of service and the need to keep water rates affordable. During last year's rate study, staff took several actions toward that vision by eliminating roughly 20 permanent positions in water utility operations, reducing discretionary reserves by $20 million, reducing overhead expenses, and postponing several capital projects in an effort to flatten out the rate projection.

This year's future rate projection is illustrated in Figure 1-1. It reflects a range of potential water rates over the next five years depending on the level of service that would be provided. The lower end of the range, or the "Low Case," is the same as last year's projection. The higher end of the range, or the "High Case," reflects the water rates necessary to fund additional operations and capital investments that would be delayed indefinitely under the Low Case, plus a small increase in discretionary reserves. This change in discretionary reserves is outlined in a staff-recommended revision to the adopted reserve policy. The draft reserve policy, as well as the current reserve policy can be found in Appendix B.

The "High Case" includes updated cost estimates for the capital projects that were identified in the 2004 projection, as well as additional costs for the Recycled Water Master Plan and infrastructure reliability. Since there were no significant differences in total cost between the "High Case" and the 2004 projections, water rates in North County are very similar in both cases. In South County/Coyote Valley, the 2004 rate projection between FY 2006–07 and FY 2009–10 is higher than the "High Case" projections. This is because the 2004 projection resolved the deficit in South County/Coyote Valley sooner. Additionally, the "High Case" includes a $3.7 million credit to the South County/Coyote Valley for its contributions to the Central Valley Project reserve, which is no longer necessary.

Similar to last year's rate study, there are several initiatives and studies in progress that can result in future capital or operations projects. Since the projects are not fully defined, they were not included in the range of potential water rates. These include, but are not limited to:

- Investments associated with the Coyote Valley Specific Plan
- Investments associated with North San Jose Development
- Potential Integrated Water Resources Plan (IWRP) investments beyond the "No Regrets" portfolio
- Potential funding of a reserve for post-retirement health benefits as a result of GASB 45 implementation
- Impacts of the Santa Clara Valley Habitat Conservation Plan/National Communities Conservation Plan (HCP/NCCP)
- District's participation in potential solutions to Bay Delta water quality problems
- San Felipe Division facility refurbishments
- Potential dam seismic stability retrofit investments pending completion of study

The Board adopted the Low Case rates for FY 2006–07. The adopted municipal and industrial rate increase of $15 per acre-foot (AF) for FY 2006–07 in both water rate zones, translates to an increase of $0.52 per month

for the typical residence that uses 1,500 cubic feet per month of groundwater.

Customers in most instances will experience rate increases enacted by their retail water provider in addition to those from the District. For example, the District's largest retail partner, San Jose Water Company, has cited the need to raise rates to pay for escalating operating expenses, initiate a well replacement program, accelerate replacements of water mains, and make improvements to pump stations, well fields and water tanks.

This year, the Board supported staff's recommendation to follow the Low Case in light of several efforts in progress to engage all stakeholders and become more efficient internally, including:

- Collaborative planning initiatives including the 5-year formal Capital Improvement Plan (CIP) and Comprehensive Water Resources Management Plan
- Resolving the approach to Infrastructure Reliability
- Resolving the approach to address new development
- Results of the Board's Comprehensive Performance Audit
- Impact of internal improvement initiatives including California Awards for Performance Excellence (CAPE), Baldrige, International Organization for Standardization (ISO), etc.

The outcomes of these efforts will help District staff narrow the rate range in the future and chart a course that best serves the community. For the same reason, the Board did not adopt a three year rate intention this year.

As shown in Table 1-1, the Board adopted a $435 per AF groundwater charge for municipal and industrial (M&I) water in the North County for FY 2006–07, a 3.6 percent increase over the prior year. For South County/Coyote Valley, the Board adopted a $230 per AF groundwater charge for M&I water for FY 2006–07, a 7.0 percent increase over the prior year. In both zones, the District's rate increase translates to an increase of $0.52 per month for the typical residence using 1500 cubic feet per month of groundwater. The water rate increases for FY 2006–07 will support the adopted operating and capital budget for the water utility.

Current Board policy adds an "open space" credit to agricultural revenues. The purpose of the credit is to preserve the open space benefits provided by agricultural lands by keeping agricultural rates low. The credit to agricultural water users in a water charge zone amounts to the difference in revenue from agricultural water use charged at a rate equivalent to 10 percent of the zone's M&I rate and that which would be generated if the agricultural rate were 25 percent of the zone's M&I rate. This year, the Board increased the open space credit and did not raise agricultural rates. The Board decided to maintain South County/Coyote Valley agricultural rates at the same level experienced in FY 2005–06 of $21.50/AF. North County agricultural rates were also decreased from $42/AF to $21.50/AF.

The Board adopted an increase in the surcharge on treated water delivered under the contracts with retail agencies from $90 per AF to $100 per AF. As outlined in treated water contracts, the District has the discretion to make available treated water in excess of the retailers' basic contract amounts, so-called noncontract treated water, "… at such times and such prices as determined by the District." The availability of noncontract deliveries will be suspended when necessary to accommodate construction activities scheduled for Rinconada Water Treatment Plant (RWTP). For FY 2006–07, the Board adopted staff's recommendation to increase the surcharge on noncontract water from RWTP from $50 per AF to $60 per AF. The District's treated water rate increase translates to an increase of $0.86 per month for a typical North County residence being served treated water. The amount of the surcharge on both contract and noncontract water affects the retailers' decisions on whether to pump groundwater or purchase treated water. The adopted increases to treated water and noncontract surcharges are intended to slightly reduce the incentive to take treated water given that the groundwater basins are currently full.

The Board adopted staff's recommendation to maintain discounts of up to $7.50 per AF for qualified users of agricultural water. The adopted Mobile Lab discount will remain at $3.75 per AF. Likewise, the adopted discount available to eligible growers for the In-field Nutrient Assessment Assistance Program (INAAP) will remain at $3.75 per AF. The rationale for maintaining the rebates at the FY 2005–06 levels are three-fold: (1) The current discount level appears to be generating satisfactory grower participation, (2) Increased grower participation would exceed staff administrative capacity, and (3) In January 2005, the Central Coast Regional Board created a regulatory incentive for growers by requiring the development of farm plans to improve water quality. As shown in Table 1-1, the net adopted agricultural water rate for eligible growers who participate in both programs is $14.00 per AF.

Water revenues can be variable based on weather patterns — especially in the spring. A wet spring may cause lower demand due to reduced landscape watering and additional retailer-controlled surface water supplies. Consequently, this may lower revenue. In FY 2005–06, the county experienced higher than average rainfall in the spring which resulted in revenues that are estimated to be $10.8 million less than anticipated. The revenue shortfalls will be offset by operations cost savings.

North County Rate Issues & Analysis

North County (Zone W-2) is generally defined as the portion of Santa Clara County north of Metcalf Road. The water demand projection for FY 2006–07 and beyond has been modified slightly to align with the demand projection shown in the recently adopted 2005 Urban Water Management Plan (UWMP). The municipal and industrial demand projection has been reduced by 3,000 acre-feet per year which has reduced the revenue projection by $1.3 million to $1.9 million per year.

Under the Low Case rate projection in Figure 1-1, several capital projects are delayed indefinitely including the San Luis Reservoir Low-point Improvement Project, Infrastructure Reliability Project Portfolio 2, and various facility repair and replacement projects. In addition, some preventative maintenance, operational improvements and planning activities in the following operations areas have been delayed indefinitely or slowed under the Low Case: asset management, environmental and master planning, groundwater management, raw water operations and maintenance, recharge operations and maintenance, and emergency services. Slowing the pace of or indefinitely postponing all of the projects and activities mentioned above may lead to larger corrective maintenance costs in the future. The High Case reflects the water rates necessary to fund the capital and operations costs that would be delayed under the Low Case.

South County/Coyote Valley Rate Issues & Analysis

South County/Coyote Valley (Zone W-5) is generally defined as the portion of Santa Clara County south of Metcalf Road, including Coyote Valley, Morgan Hill, San Martin and Gilroy. The water demand projection for FY 2006–07 and beyond has been modified slightly to align with the demand projection shown in the recently adopted 2005 UWMP. The municipal and industrial demand projection has been reduced by amounts ranging between 1,000 to 3,000 acre-feet per year which has reduced the revenue projection by up to $1 million per year depending on the year.

Under the Low Case rate projection in Figure 1-1, several capital projects are delayed indefinitely including additional investments associated with the Recycled Water Master Plan, additional recharge pond investments, the San Luis Reservoir Low-point Improvement Project, and various facility repair and replacement projects. In addition, some preventative maintenance, operational improvements and planning activities in the following operations areas have been delayed indefinitely or slowed under the Low Case: asset management, environmental and master planning, groundwater management, raw water operations and maintenance, recharge operations and maintenance, and emergency services. Slowing the pace of or indefinitely postponing

all of the projects and activities mentioned above may lead to larger corrective maintenance costs in the future. The High Case reflects the water rates necessary to fund the capital and operations costs that would be delayed indefinitely under the Low Case.

Staff projections for the South County/Coyote Valley show that annual costs will exceed revenues for the next few years and the cumulative revenue shortfall would not be balanced until FY 2014–15. Staff is recommending a gradual succession of rate increases to avoid a very large increase that would otherwise be required to bring annual revenues and costs into balance in one year.

The revenue shortfall, which began in FY 2002–03 was initially driven by investments in recycled water and conservation. In subsequent years, cost increases were driven by program enhancements including increased water supply planning and collaboration efforts, installation and operation of more wells to monitor groundwater levels and quality, development of computer models for the groundwater basins, increased efforts to resolve solvents cases, initiation of an asset management program, more maintenance work on San Felipe Division facilities and raw water pipelines, and improved security. More recently, increases in imported water contract rates and loss of property tax revenue have exacerbated the revenue shortfall.

In 2003, the District initiated an aggressive strategy to respond to the perchlorate contamination found in the Llagas Subbasin. The District is planning to spend $9 million over the next three years in an effort to restore the quality of the groundwater in the subbasin. The District continues to fund perchlorate-related costs from Water Utility reserves and federal grants. The adopted rates do not include recovery of the perchlorate clean-up program costs. Staff is tracking the costs of the perchlorate response program separately in an effort to obtain full reimbursement. If the District is not successful in obtaining full reimbursement, the cumulative revenue shortfall in South County/Coyote Valley would worsen.

SUMMARY

Section 2

Section 2 presents data on the county's water supply and water usage. Water supply records indicate a slightly increasing trend over the past three calendar years, 2004 through 2006. This is due primarily to the local supplies. Water use in calendar year 2005 was less than 2004 due to the wet spring. In 2004, water usage was recorded at 381,100 AF, and in 2005, 366,300 AF. Water use in 2006 is conservatively estimated to increase slightly to 378,200 AF based on a dryer than normal year assumption.

Section 3

Section 3 describes water supply and quality challenges facing the Water Utility and the District activities to address them. The activities exhibit the District's continuing efforts to conserve and augment its water supplies and are the primary reason for the need for water charges. Construction for the Lenihan Dam Outlet Modification Project is at the forefront of the District's plans in FY 2006–07.

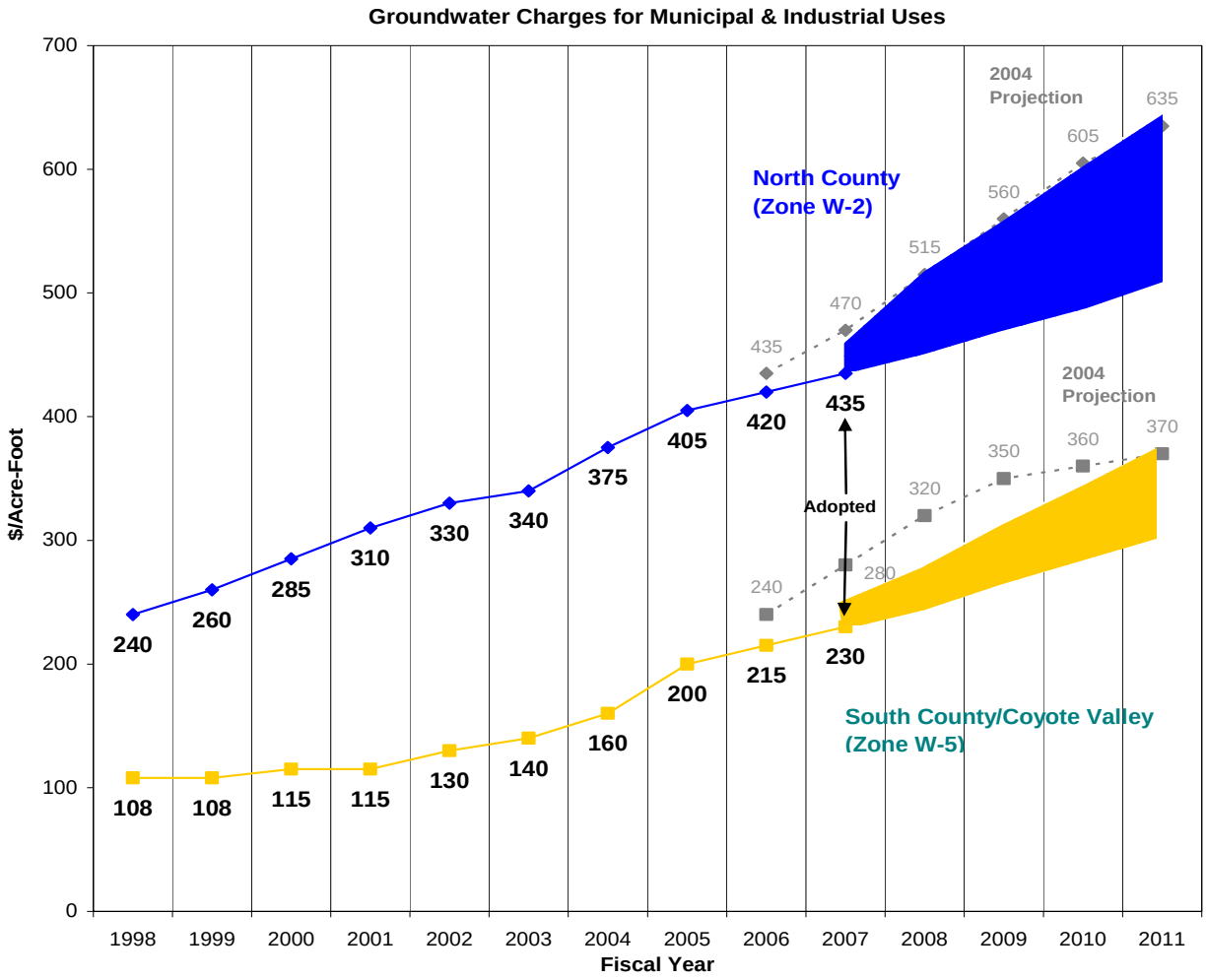
Section 4

Section 4 discusses the revenue required to meet needs in FY 2006–07 and describes the financial analysis for the two water charge zones. This section also includes a projection of the Water Utility finances over the next five years. For FY 2006–07, the District plans to invest primarily in the Lenihan Dam Outlet Modification Project. The overall revenue requirement for FY 2006–07 is budgeted to be $167.2 million. The Water Utility

requirements will be met from a combination of current revenues, reserves, and debt.

For FY 2006–07, North County and South County/Coyote Valley adopted water rates are at the same level that was projected last year. As illustrated in Figure 1-1, North County groundwater rates are currently projected to increase at an average of 4.0 percent per year between FY 2006–07 and FY 2010–11 under the Low Case and 9.0 percent per year under the High Case. South County/Coyote Valley groundwater rates are projected to increase at an average of 7.2 percent per year during the same time frame under the Low Case and 11.8 percent under the High Case.

FIGURE 1-1
Five- Year Rate Projection



Note: Impact of Coyote Valley Specific Plan not included

2. SANTA CLARA COUNTY WATER REQUIREMENTS AND SUPPLIES

LONG-TERM WATER USE TRENDS

Water use in the county is categorized as either agricultural or municipal and industrial (M&I). Recorded North County water use since FY 1964–65 and South County/Coyote Valley water use since FY 1987–88 (when the District merged with Gavilan Water Conservation District) is shown in Figures 2-1 and 2-2, respectively. Metcalf Road is the dividing line between North County Zone W-2 and South County/Coyote Valley Zone W-5 (see map of Water Utility Zones in Appendix C). South County/Coyote Valley, Zone W-5 includes Coyote Valley, Morgan Hill, San Martin and Gilroy.

Both District and non-District water use in North County, as shown in Figure 2-1, is predominantly M&I. Projections from the District's 2005 Urban Water Management Plan (UWMP) indicate an increase in M&I use through 2020, when the North County annual M&I water use is projected to be 342,600 acre-feet (AF). Agricultural water use is expected to be approximately 1,000 AF per year by the year 2020 in North County, or less than 1 percent of the total North County water use.

In South County/Coyote Valley, it is anticipated that M&I water use will continue to increase while agricultural use is expected to decline (see Figure 2-2). The latest projections for South County/Coyote Valley anticipate total water use of about 61,800 AF by the year 2020. M&I and agricultural water uses are projected to be 38,800 AF and 23,000 AF that year, respectively.

The projected water usage for the county discussed above totals 405,400 AF in 2020. The projected increase of 27,800 AF, or 7 percent, over the UWMP-estimated usage in 2005 takes into account many factors, including population trends, employment growth, and water conservation practices. The conservation efforts planned between now and 2020 account for approximately 53,000 AF, offsetting more than half the additional water supplies (i.e., 78,000 AF) needed to meet increased demand. Recycled water projections by producers offset demand by an additional 14,000 AF and increases in purchases anticipated by SFPUC contractors in their long-term planning assumptions account for another 11,000 AF. Overall, groundwater reserves and additional stored supplies will be enough to meet demand in dry and multiple years to about year 2020. Beyond 2020, the county would need to start dipping into groundwater reserves during years of normal precipitation, unless new supplies are secured. Any additional supplies needed beyond 2020 to meet normal year demand will also meet dry and multiply dry year water demands.

LONG-TERM WATER SUPPLY OUTLOOK

The District's water supply includes water imported from the Sacramento-San Joaquin Delta, local water stored in reservoirs and groundwater subbasins, water banked in San Joaquin Valley, and recycled water. The Santa Clara groundwater subbasin is in the North County, while both the Coyote and Llagas groundwater subbasins are in South County/Coyote Valley (see Groundwater Subbasins and Major Recharge Systems Map in Appendix C).

Sources of water supply in North County consist of locally developed water, recycled water, and water imported via the State Water Project (SWP), the federal Central Valley Project (CVP), and the City and County of San Francisco's Bay Division Pipelines (Hetch Hetchy). South County/Coyote Valley is supplied by locally developed water, recycled water, and CVP water imported via the San Felipe Division. The recorded water supply taken in North County since FY 1964–65 is shown in Figure 2-3, and South County/Coyote Valley since FY 1987–88 is shown in Figure 2-4. Projected supplies of local, recycled and imported water are shown to the

year 2020. Projected supply availability figures are based on supplies needed to meet a normal year demand as presented in the District's 2005 Urban Water Management Plan (UWMP 2005). According to the UWMP 2005, a normal year is defined as a year in the historical sequence that most closely represents median runoff levels and patterns. No single year's hydrology is equivalent to the average for all sources; however, 1985 was a near-average year for both local rainfall and imported water and is the year determined to be most representative of normal year supply.

In working toward ensuring a reliable future water supply, the District is engaged in several activities. Within the county, the District continues its conjunctive use program of recharging surface water to augment groundwater supplies. Additionally, the District is providing financial incentives to wastewater agencies for delivery of recycled water for nonpotable uses and has signed a partnership agreement with the City of San Jose to explore the future development of recycled water. Local supplies will continue to be supplemented in the future with non-potable water from recycled water facilities in San Jose, Sunnyvale, and the South County Regional Wastewater Authority (SCRWA) serving Gilroy and Morgan Hill.

The District, along with numerous other urban water agencies, is participating in the statewide Water Conservation Memorandum of Understanding to implement 16 urban water use best management practices (BMP). In addition, the District manages urban water use conservation programs beyond the BMPs and is implementing agriculture water conservation practices as required under the CVP Improvement Act (CVPIA). These activities are more fully described in Section 3, Benefits and Services Provided by the District.

DISTRICT WATER SUPPLIES AND USE

The following tables show calendar year activities for 2004 and 2005 and the plan for calendar year 2006 reservoir operations, raw water conveyance, treated water production, and groundwater recharge. Table 2-1 summarizes water use recorded and projected in the county for calendar years 2004, 2005 and 2006. Table 2-2 documents District and non-District annual water supply and distribution management activities, Table 2-3 summarizes District out-of-county water banking activities for those three years, and Table 2-4 summarizes the District's water transfers. The differences between Tables 2-1 and 2-2 can be accounted for by changes in surface water and groundwater storage. Moreover, Table 2-2 summarizes only those supplies managed by the District or other agencies. The groundwater basin is also replenished by naturally occurring recharge in areas not managed by the District or others.

FIGURE 2-1
North Santa Clara County Water Use
Zone W-2

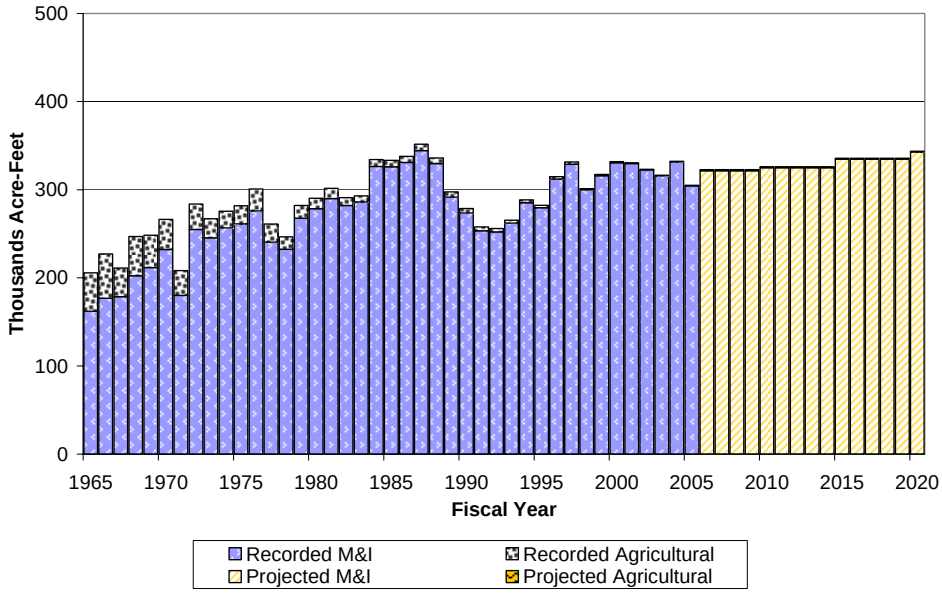


FIGURE 2-2
South Santa Clara County/Coyote Valley Water Use
Zone W-5

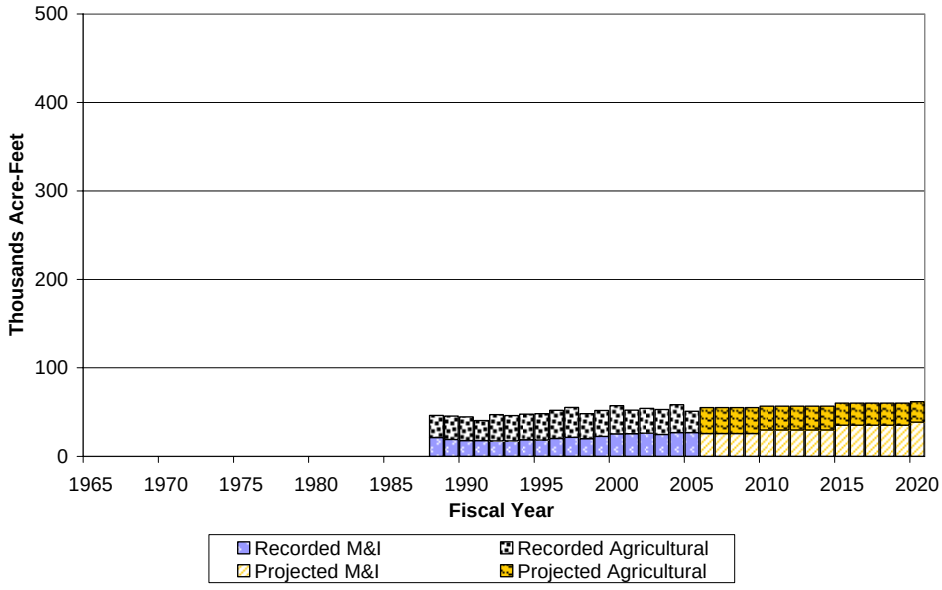


FIGURE 2-3
North Santa Clara County Water Supply
Zone W-2

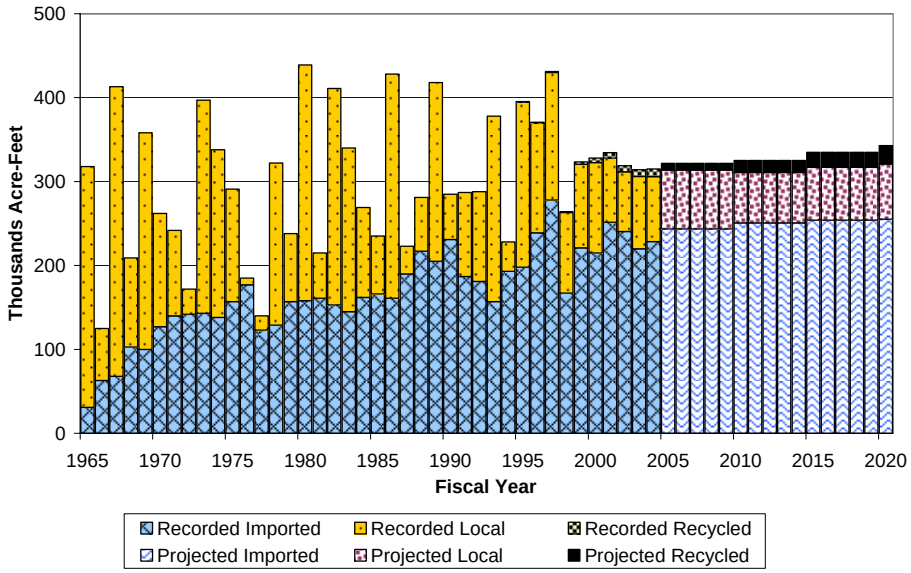
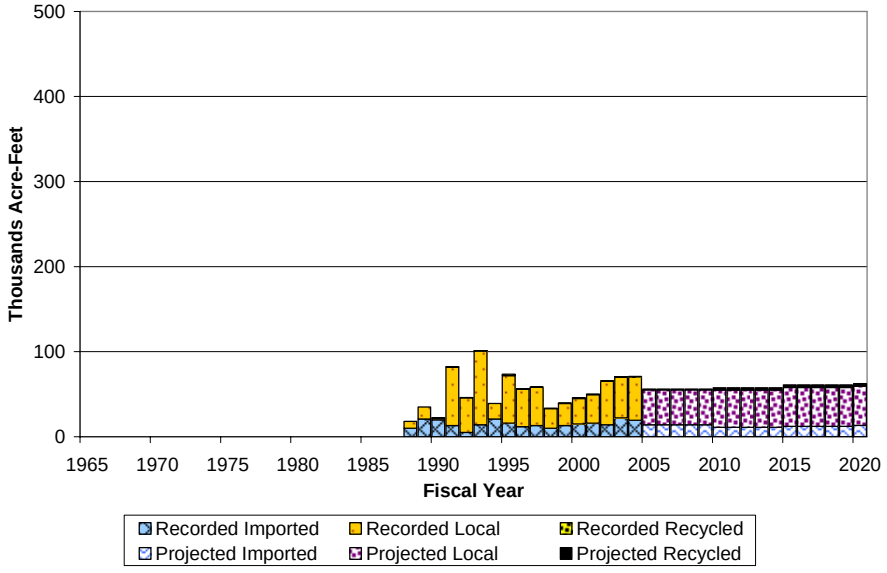


FIGURE 2-4
South Santa Clara County/Coyote Valley Water Supply
Zone W-5



Note: North County and South County/Coyote Valley projected supplies, illustrated in the figures above, represent supplies needed to meet a *normal* year demand as presented in the District's 2005 Urban Water Management Plan (UWMP 2005). Please refer to the UWMP 2005 for supplies necessary for dry and multiple dry years. The strategy is to maximize use of imported and recycled water supplies to meet demand and then take from local surface supplies and groundwater. Incremental increases seen in projected imported water supplies are due to SFPUC projections. Recorded supply figures reflect the amounts of supply *taken*. Supplies *taken* are often less than the supplies *available* due to system capacity limitations and weather. Supplies that are not taken in a single year are carried over, banked out of county, exchanged, or sold.

TABLE 2-1
Water Use for Calendar Years 2004 Through 2006 (Acre-Feet)
Santa Clara County

	Actual 2004	Actual 2005	Projected 2006
I. WATER PRODUCTION			
District Treated Water to SFWD Intertie		700	4,200
In-District Groundwater Pumping	158,600	140,100	146,800
District Treated Water	134,600	133,900	133,800
District Surface Water Irrigation	3,500	2,600	3,000
Recycled Water	600	700	1,100
Non-District (Import, Local, & Recycled)	83,800	88,300	89,300
TOTAL WATER PRODUCTION	**381,100**	**366,300**	**378,200**
II. WATER USE			
District Municipal & Industrial	267,800	250,500	260,800
District Agricultural	29,500	27,500	28,100
Non-District (Import, Local, & Recycled)	83,800	88,300	89,300
TOTAL WATER USE	**381,100**	**366,300**	**378,200**

Recorded Operations for Calendar Year 2004

In 2004, the total water use in the county was 381,100 AF. Rainfall in the 2004 calendar year totaled 15.10 inches in downtown San Jose, about 104 percent of average. Water use from District sources included 267,800 AF of M&I and 29,500 AF of agricultural water. Non-District use totaled 83,800 AF provided by non-District sources (Hetch Hetchy, Stanford and San Jose Water Company reservoirs, and recycled water deliveries). Of the District water used, 158,600 AF were provided through groundwater pumping, 600 AF through recycled water produced by SCRWA, and 134,600 AF were delivered from our three water treatment plants. In addition, 3,500 AF were delivered from surface waters for direct use. Table 2-1 presents a detailed look at the in-county water demand.

Table 2-2, which excludes natural recharge, depicts how the water supply was managed and distributed in 2004. The District imported approximately 187,200 AF of water from SWP and CVP and released approximately 76,400 AF from its reservoirs for groundwater recharge or treatment in one of our three treatment plants. The remainder of the District demand was met with natural recharge or carryover storage from our groundwater basins.

TABLE 2-2
Annual Water Supply And Distribution For Calendar Years 2004 Through 2006 (Acre-Feet)
Santa Clara County

Water Supply	Actual 2004	Estimated 2005	Projected 2006
I. ANNUAL WATER SUPPLY			
District Supply			
Imported Water To County			
SFWD Intertie	-	-	-
CVP Imports	127,700	89,100	74,700
State Water Project Imports	59,500	52,400	72,800
Total District Imports	187,200	141,500	147,500
Local Surface Water	76,400	138,900	180,100
SCRWA Recycled Water	600	700	1,100
Non-District Supplies			
Hetch Hetchy	60,700	59,000	59,800
Other Reservoirs and Streams (SJWC and Stanford)	13,700	16,100	16,100
Other Recycled Water	9,400	13,200	13,400
TOTAL	**348,000**	**369,400**	**418,000**
II. DISTRIBUTION OF ANNUAL WATER SUPPLY			
Distribution Within District System			
To Treated Water	134,600	133,900	133,800
To SFWD Intertie		700	4,200
To Surface Water: Irrigation via Pipeline	2,800	2,300	3,000
To Surface Water: Environment	28,500	40,100	81,500
Recycled Water to Irrigation	600	700	1,100
To Managed Recharge			
Santa Clara Groundwater Subbasin	66,700	70,100	74,800
Coyote & Llagas Groundwater Subbasins	31,000	33,300	30,300
Subtotal of Distribution to District System	**264,200**	**281,100**	**328,700**
Non-District Distribution			
Hetch Hetchy	60,700	59,000	59,800
San Jose Water Co. and Stanford	13,700	16,100	16,100
Other Recycled Water	9,400	13,200	13,400
Subtotal of Non-District Distribution	**83,800**	**88,300**	**89,300**
TOTAL	**348,000**	**369,400**	**418,000**

Note: The annual water supplies reported in this table include only volumes managed by the District and others that are readily estimated. CVP import supplies exclude sales and transfers to the Environmental Water Account and Westlands Water District. SWP import supplies exclude amounts banked at Semitropic Water Storage District due to the fact that these activities take place outside of Santa Clara County. In addition to the managed recharged data included in the table, county groundwater supplies are augmented by naturally occurring recharge each winter and spring. These “unmanaged” amounts are essential to county groundwater supplies and allow for the fact that the in-District groundwater pumping volumes in Table 2-1 usually exceed the annual managed recharge.

Estimated Operations for Calendar Year 2005

In 2005, the total water use in the county was 366,300 AF. Rainfall in the 2005 calendar year was 22.80 inches in downtown San Jose, which is approximately 158 percent of average. Total water use included 250,500 AF of M&I and 27,500 AF of agricultural water. It also includes 88,300 AF provided by non-District sources (Hetch Hetchy, Stanford and San Jose Water Company reservoirs, and recycled water deliveries). Of the District water used, approximately 140,100 AF was provided through groundwater pumping, 700 AF from recycled water, 700 AF to the SFWD Intertie, and 133,900 AF was delivered from our three water treatment plants. In addition, 2,600 AF was delivered from surface waters for direct use. Table 2-1, which includes supplies available from natural recharge, presents a detailed look at the in-county water demand in 2005.

Table 2-2, presents how the water supply was managed and distributed in 2005. The District imported approximately 141,500 AF of water from the state and federal water projects. Water releases from District reservoirs totaled approximately 138,900 AF for delivery to groundwater recharge ponds, one of our three treatment plants, or for flood management and downstream environmental flows. SCRWA produced 700 AF of recycled water, exclusive of in-plant usage. The remainder of the District demand was met with natural recharge or carryover storage from our groundwater basins.

Projected Operations for Calendar Year 2006

The District's annual Operations Plan describes how supplies available to Santa Clara County will be used. A preliminary plan based on conditions known in July 2006 and supply projections needed to meet dry year demands is summarized in Table 2-2. As of July 1, 2006, the 10 District reservoirs had a combined storage of approximately 144,200 AF, or about 85.4 percent of capacity, compared to 84.3 percent in July 1, 2005. Over the last twenty years the 10 District reservoirs averaged 98,300 AF in storage on July 1.

Imported water supplies are currently projected to be 100 percent of the District's contractual entitlements. On April 18, 2006, the Department of Water Resources (DWR) announced that 100 percent of the SWP entitlement of 100,000 AF will be available to the District. And, on May 11, 2006, the United State Bureau of Reclamation (USBR) announced allocations of 100 percent of the 33,100 AF of CVP agricultural water, and 100 percent of the 119,400 AF of CVP M&I water. This results in a total supply of approximately 152,500 AF of CVP water (compared to a five-year average of 122,900 AF) and 100,000 AF of SWP water (compared to a five-year average of 70,800 AF), for a total of 252,500 AF of available imported water.

In addition to the imported water allocation, the District is also expected to receive about 11,300 AF of carryover and about 16,300 AF of other imported water in 2006. Of the available imported water supply amount of 280,100 AF, the District plans to use 147,500 AF in county this year. The overage will either be taken as carryover the next year, transferred, exchanged, or banked. In addition to imported water, the annual water supply is made up of 180,100 AF of local water supply and 1,100 AF of recycled water.

The District's 2006 Operation Plan provides projections of how District-managed water (locally conserved and imported water) will be distributed to efficiently use recharge facilities and provide treated water to meet demands. Table 2-2 shows the planned distribution of the projected supplies to Santa Clara County from District managed and non-District sources (Hetch Hetchy, recycled water and San Jose Water Company and Stanford stored surface water) of 418,000 AF for 2006.

Imported Water Operations

Water Reallocation Agreement

In 1997, the District executed a Water Reallocation Agreement with the USBR and agricultural districts in the San Luis and Delta-Mendota Water Authority that establishes the basic level of reliability for the District's CVP M&I water supplies. This 25-year agreement resolved disputes related to the USBR's M&I Water Shortage Policy that provides CVP M&I water allocations of no less than 75 percent of historic use under most shortage conditions. In addition, Westlands and San Luis water districts agreed to augment the District's supplies in certain years to bring District CVP M&I reliability up to 75 percent of contract amount. In return, the District has reallocated 100,000 AF of CVP water to the agricultural districts, and will continue to optimize water supplies for additional reallocations that may be potentially agreed upon over the term of the agreement.

Water Banking

To provide reliability in future years, the District banks water in groundwater storage outside of the county. This involves conveyance of the District's state or federal water supplies to a banking partner, another water district that operates a groundwater conjunctive use program. Storage in the bank occurs when water is physically delivered to ponds to soak into the aquifer, or when surface water deliveries are used by the banking partner in lieu of groundwater pumping ("in-lieu recharge"). Return of stored water is accomplished when the banking partner uses groundwater in place of surface supplies, or physically pumps groundwater into the surface conveyance system. The District is then delivered imported water from the Delta that would have otherwise been delivered to the banking partner or to other SWP contractors. The District primarily banks SWP water at the Semitropic Water Storage District in Kern County. Table 2-3 shows the annual changes and year-end balances for banked water during calendar years 2004 through 2005, and the projected activity in 2006.

The District is guaranteed the ability to deliver or "put" up to 31,675 AF of water to storage each year. In any given year, the District may be able to deliver more than 31,675 AF by using the unused "put" capacity of other banking partners, including Semitropic. The maximum amount of water delivered to storage in a single year was 89,022 AF in 2005. The District can withdraw or "take" up to 31,500 AF to 78,500 AF of water from storage in any given year, depending upon hydrology. The wetter the year, the greater the "take" capacity.

A record amount of water (89,022 AF) was banked in 2005. The banked water was comprised of the District's 2004 carryover water that otherwise would have been lost, SWP and CVP contract supplies, and SWP surplus water.

TABLE 2-3
District Water Banking for Calendar Years 2004 Through 2006
(Acre-Feet)

Water Banking	Actual 2004	Actual 2005	Estimated 2006
SEMITROPIC WATER STORAGE DISTRICT (SWP WATER)			
Beginning Balance (January 1)	144,457	144,457	224,577
District Deposit or Withdrawal	0	89,022	43,000
Transaction Losses (e.g., Evaporation)	0	-8,902	-4,300
TOTAL BANKED ENDING BALANCE (DECEMBER 31)	**144,457**	**224,577**	**263,277**

Water Exchanges

In recent years, the District has entered into exchanges with other agencies to maximize the efficiency of and facilitate the management of its water supplies. In 2004, the District exchanged water with San Benito Water District to improve its supply reliability. In 2005, the District engaged in a three-party exchange with the San Luis and Delta-Mendota Water Authority and Kern County Water Agency that facilitated the District's 2005 banking activities.

Water Transfers

The District uses temporary or "spot market" water transfers to manage year-to-year variability in CVP and SWP supplies, and to reduce overall costs of the imported water program. In some years, the District will both buy and sell transfer water, initially buying water to offset the risk of shortage, and then selling if hydrologic conditions are wetter than expected. Additionally, some multi-year commitments may also result in off-setting transactions in the same year. In 2004 and 2005, the District purchased 3,100 AF and 2,828 AF of transfer water, respectively. In 2005, the District sold water to the CALFED Bay-Delta Program's Environmental Water Account (EWA), whose purpose is "to provide water for the protection and recovery of fish beyond water available through existing regulatory actions..." The District also completed the sale of 10,000 AF of CVP water to federal wildlife refuges. These sales helped offset the cost of the imported water program. Table 2-4 summarizes recent EWA transactions.

TABLE 2-4
Water Transfers for Calendar Years 2004 Through 2006
(Acre-Feet)

Transaction (In AF)	Actual 2004	Actual 2005	Estimated 2006
Purchases	3,100	2,828	643
Sale to EWA*	0	-8,804	0
Sale to Federal Wildlife Refuges	0	-10,000	0
Net Water Transfers	3,100	-15,976	643

***Note**: Source of water for sales to EWA include the District's Semitropic storage or available imported water from CVP.

3. BENEFITS AND SERVICES PROVIDED BY THE DISTRICT

Section 26.5 of the District Act specifies that this annual report provide details on the District's "...activities in the protection and augmentation of the water supplies of the district." Protecting available resources and planning for and augmenting future supplies requires that the District levy charges on the production of groundwater and enter into financial contracts for the delivery of treated surface water. The importation of water and management of local water supplies require that the District undertake a wide range of supporting functions.

The description of District activities has been organized by the Board's Ends Policies, which instruct the CEO to achieve certain results for certain recipients at a specified cost. These policies and related costs are reflected in the programs and projects budgeted in the Water Utility Enterprise. Ends Policy E-1 embodies the District's overarching mission to provide "a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner." All of the subsequent Ends policies are described at a general level and also at more defined levels. They were adopted to direct the CEO as to their intended results, organizational products, impacts, benefits, outcomes, recipients, and relative worth.

This section describes the Board's Ends Policies as well as benefits and services that the District's Water Utility Enterprise provides to carry them out. These benefits and services are presented under the general headings of:

- Ends Policy E-2 (Healthy & Safe Environment)
- Ends Policy E-3 (Enhanced Quality of Life)
- Ends Policy E-4 (Positive District Image)
- Capital Improvements (Infrastructure to Support all Ends Policies)

ENDS POLICY E-2

Ends Policy E-2 states, *"There is a healthy and safe environment for residents and visitors."* This policy strives to accomplish two goals. The first goal is to provide a reliable supply of healthy, clean drinking water. The second goal is to provide reduced potential for flood damages. The Water Utility Enterprise is responsible in whole or in part for the first goal. The programs that endeavor towards this goal and the specific ends policy(ies) that they are designed to fulfill are as follows:

Water Quality Protection

The District is responsible for protecting surface and groundwater resources for use in the county. Water quality programs include: (1) treating local and imported surface water for sale to retailers, (2) protecting local surface and groundwater resources from contamination, and (3) monitoring imported surface water from the Sacramento–San Joaquin Delta for contamination, and participating in efforts with the state Department of Water Resources and other agencies to protect the Delta from contaminating sources. Water treatment of local and imported surface water is necessary to ensure that the water the District provides meets or exceeds all federal and state drinking water standards. *(Ends Policy 2.1.1)*

Treated Water Operations

The District owns and operates three water treatment plants: Santa Teresa Water Treatment Plant (STWTP), Rinconada Water Treatment Plant (RWTP), and Penitencia Water Treatment Plant (PWTP), which provide

high-quality treated water to the residences and businesses in Santa Clara County. The treatment plants utilize conventional treatment process of flocculation, sedimentation, filtration, and disinfection to provide high-quality water. The treatment plants are in the process of adding advanced treatment technologies, including ozone as the primary disinfectant, in order to continue ensuring high-quality drinking water that meets drinking water standards. The STWTP recently brought their ozone systems on-line in February 2006 and PWTP brought its ozone on-line in July 2006. Construction of ozone systems at RWTP are planned to be constructed and on-line by 2012.

In a "Green Business" effort to use more environmentally friendly chemicals, the District's water treatment plants switched the corrosion inhibitor they use, from a zinc orthophosphate to a non-zinc orthophosphate product, phosphoric acid. Corrosion inhibitors are added to the water leaving the District's water treatment plants in order to reduce corrosion in the distribution system and customers' piping. Keeping corrosion in control ensures lead and copper levels in customers' tap water comply with the Federal Lead and Copper Rule. The move to the non-zinc product has the "Green Business" benefit of reducing zinc loading to the local wastewater treatment plants, and ultimately the amount of zinc discharged into the San Francisco Bay.

Reflecting its commitment to provide the highest quality water possible, the District was among the first water utilities nationwide to join the Partnership for Safe Water in 1995 (Partnership). The Partnership is a voluntary program developed cooperatively by the United States Environmental Protection Agency, the American Water Works Association, the Association of State Drinking Water Administrators, and several other national drinking water industry organizations. The purpose of the program is to further reduce the potential risks to consumers from microbial contaminants such as cryptosporidium and giardia. The District has consistently surpassed the Partnership's goal for filtered water turbidity, a critical indicator of plant performance. *(Ends Policy 2.1.1)*

Hydrologic Data Management

The District supports numerous data collection and analysis efforts covering rainfall, stream flows, reservoir storage, water use, groundwater levels, and other information that is essential to planning and operating our water distribution and delivery system. *(Ends Policy 2.1)*

Surface Water Transportation and Storage

Water supply reliability includes both the availability of the water itself as well as the reliability and integrity of the infrastructure and systems that transport and store it. Thus, all activities related to operating and maintaining the District's dams, reservoirs, canals, and pipelines are directly related to providing water supply.

District facilities are subject to regulation regarding seismic performance of dams, reservoir landslide monitoring and evaluation, and periodic field inspections. Consequently, maintenance activities include continuing liaison and data exchange with the California Division of Safety of Dams and the Federal Energy Regulatory Commission with regard to the safety of District dams. *(Ends Policy 2.1.2)*

Imported Water

The SWP, CVP, and City and County of San Francisco's Hetch Hetchy Project provide approximately 60 percent of water supplies in average years to the county. Imported water is conveyed to the county through the South Bay Aqueduct, which carries water from the State Water Project; the federal San Felipe Division's Santa Clara Conduit, which brings water from the CVP; and the Hetch Hetchy Aqueduct, which brings water from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains.

Management of the imported water program includes protecting the District's assets (CVP, SWP, and other

contract rights); meeting current year operational needs for imported supplies; developing water transfers, exchanges and banking agreements to support the Integrated Water Resources Plan; and controlling costs. Annual imported water purchase costs are approximately $40 million, a significant portion of the Water Utility budget. Controlling these costs involves close monitoring of appropriate state and federal budgets, cost allocations, and charges for the CVP and SWP, and related CALFED programs. Financial issues frequently arise that must be resolved through negotiation among contractors and the project agencies, administrative procedures, and sometimes legislation or litigation. In addition, if there is no conflict with water reliability goals, the District offsets costs by using imported water assets to generate revenue. The District has sold wet-year water and provided temporary storage options to the Environmental Water Account (EWA) in recent years to offset the costs of purchasing water.

Maintaining reliable access to high-quality supplies of imported water is essential to meeting current water needs and to implementing the District's IWRP strategy for future water supplies. Both Board and staff members devote considerable time in three areas: Resolution of Bay-Delta issues through the CALFED process, water banking, and managing CVP and SWP contract issues. Each of these is discussed below. *(Ends policies 2.1.2, 2.1.3 and 2.1.4)*

Resolution of Bay-Delta Issues: (CALFED Bay-Delta Program)

The District imports water through the San Francisco Bay/Sacramento-San Joaquin River Delta Estuary (Bay-Delta) under contracts with the SWP and the federal CVP. The Bay-Delta is the largest estuary on the west coast and supports more than 750 species of plants and wildlife. The Bay-Delta also provides water supply to more than two-thirds of the population in the state and to agriculture in the Central Valley and the San Felipe Division. However, decades of competing demands have taken a toll on the Bay-Delta and today it no longer functions as a healthy ecosystem or as a reliable source of water. Regulatory actions to protect threatened or endangered fish have reduced the reliability of Bay-Delta water supplies. Water quality is degraded, making it difficult and expensive to meet drinking water standards. In addition, the vulnerability of Delta levees to seismic and flooding failures threatens both the infrastructure and the quality of California's water supply.

The District is a leader in garnering broad support for the CALFED Bay-Delta Program. Staff actively participate in the Bay-Delta process and the Bay-Delta public advisory committees. A successful Bay-Delta resolution is absolutely essential to address California's water problems and to maintain the public welfare and the economic viability of the state.

In addition, the District supports restoration of the Bay-Delta ecosystem through payments to a restoration fund that are mandated by the 1992 Central Valley Project Improvement Act (CVPIA). Depending on the amount of CVP water taken, the District contributes approximately $2 million annually to this fund.

In 2005, the governor proposed development of a ten-year action plan for the CALFED program. The plan involves four key activities: refocusing on the highest priority Delta issues; installing a new governance structure; improving program and fiscal management; and implementing a near-term funding strategy. In November 2005, the governor's Little Hoover Commission issued its findings of CALFED governance, concluding, "One lesson from the CALFED experiment is that process and structure cannot substitute for leadership or authority." The report contained specific recommendations to separate and clarify the roles of management, public involvement and legislative oversight. State and federal agencies and water users are currently developing regulatory commitments and additional water user contributions for the preparation of Habitat Conservation Plans, a Species Recovery Capital Fund, a long-term "Delta Vision" process, and Pelagic Organism Decline studies.

In addition, CALFED continues to move forward with a package of Delta infrastructure improvements to improve Delta water quality and increase Delta water supplies, improve conditions for fish, and protect in-Delta water users. Potential benefits of the package to the District include: more reliable CVP and SWP supplies; near-term protections against the San Luis Reservoir low point; improved Delta water quality, and an extension of the EWA. The allocation of costs to beneficiaries is the subject of ongoing negotiations among stakeholders, agencies, and legislators. However, some portion of the cost of Delta improvements is expected to be allocated to the District. These costs currently are not included in water rate projections. *(Ends policy 2.1.3)*

Banking Available Supplies for Future Use

The District's IWRP identified banking of excess supplies in wet years as a central element in the preferred strategy for providing supplies needed in future dry years.

In May 1996, the Board took the first step in implementing the banking strategy when it approved an agreement with Semitropic Water Storage District to store 45,000 AF of State Water Project water. In 1997, the Board approved a long-term agreement with Semitropic. Under the terms of this agreement, the total banking capacity available to the District until January 1, 2006 was 350,000 AF. By that date, the District had to decide its permanent level of investment in Semitropic, and make any capital payment necessary to reach that level. On December 6, 2005, the Board approved moving forward with the remaining investment to secure 350,000 AF of storage capacity in the Semitropic Groundwater Banking Program. Staff completed the required contract amendment and made all necessary capital payments by January 1, 2006.

Through the Semitropic Groundwater Banking Program, the District has banked water in years 1997 through 2005. The District now has approximately 225,000 AF in storage (see Table 2-3). In the event of a major disruption in the Delta or failure of the Delta pumping plants, delivery of water from Semitropic to the District would be significantly affected along with other imported water deliveries from the District's SWP and CVP contracts. To the extent that Kern County Water Agency has state water stored in San Luis Reservoir that is not needed in Kern County, deliveries from Semitropic could be accomplished through the San Felipe Division. *(Ends policies 2.1.3 and 2.1.4)*

Managing Central Valley Project and State Water Project Contract Issues

The District's agreement with the U.S. Bureau of Reclamation provides for eventual payment of the major share of the USBR's costs for constructing the San Felipe Division of the CVP. The District's 1977 contract established a fixed rate for repayment of San Felipe Division facilities during the first 20 years of water deliveries (1987 through 2006) in recognition of the District's need to expand its local infrastructure to accept CVP water. The fixed rate provides for partial repayment of annual capital interest expense, and the cumulative shortfall was being tracked by the USBR as an alleged "operation and maintenance deficit," even though the District self-funds and performs San Felipe Division operation and maintenance. The District contested the USBR's accounting for project costs, and a settlement was achieved in March 2005. The settlement reduced the District's costs for CVP water by approximately $5 million per year.

Additionally, the District is continuing to negotiate the long-term renewal of its CVP contract pursuant to the requirements of CVPIA and expects that process to conclude in late 2006 or early 2007. As part of that process, the District may substantially change the repayment terms for the San Felipe Division facilities to improve financial certainty and resolve cost issues with San Benito County Water District.

The District's contract with DWR for supplies from the SWP has also been amended to address a wide range of water supply and financial issues (the "Monterey Amendment"). While some provisions of the amendment reduce the reliability of the District's SWP supplies, these are offset by others that allow more efficient, cost-effective

management of SWP water through transfers and banking. A settlement over litigation regarding the Monterey Amendment was approved by Sacramento Superior Court on May 20, 2003. *(Ends policies 2.1.2, 2.1.3 and 2.1.4)*

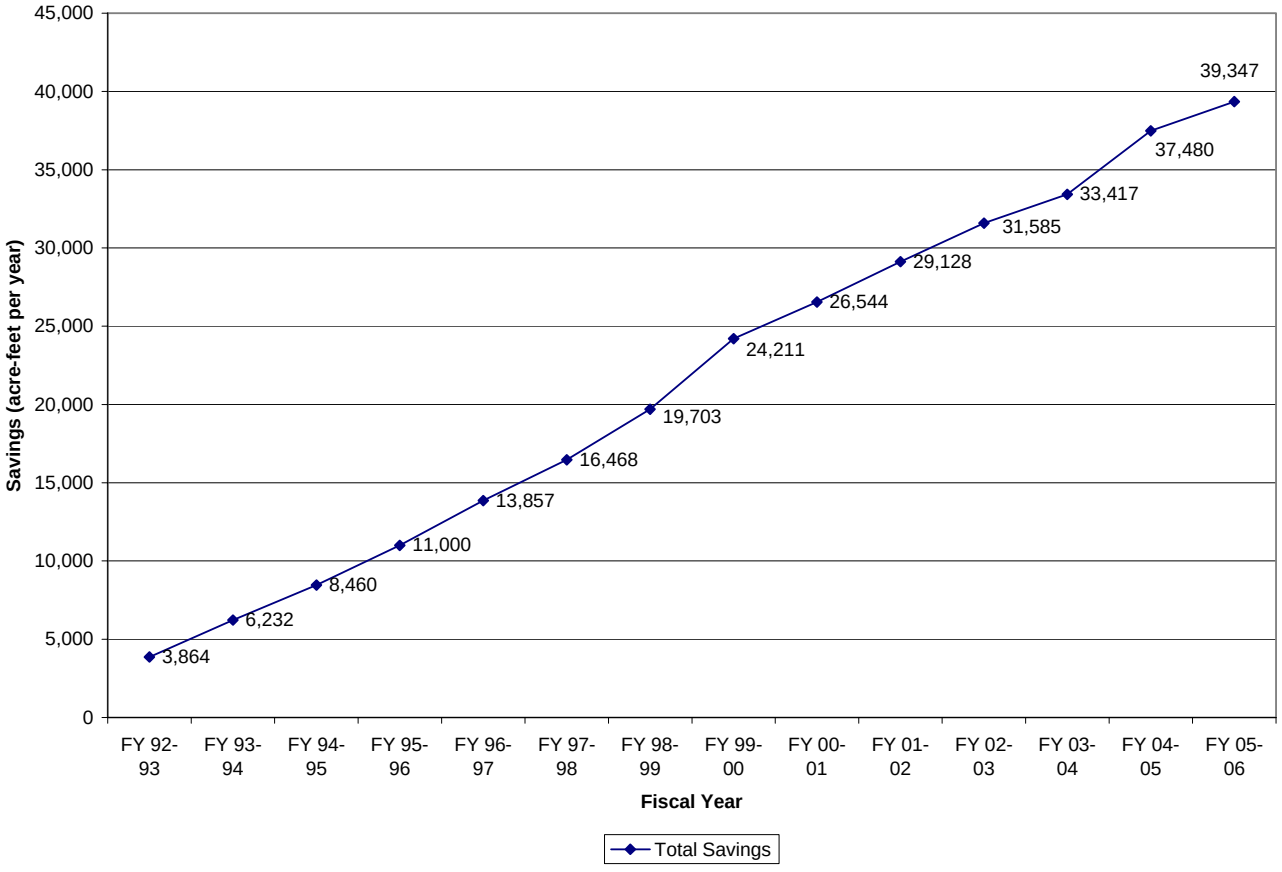
Water Use Efficiency: Water Conservation

The District's Water Conservation Program is essential to improving water supply reliability because the water savings achieved from implementing conservation will reduce current and future water demand. This is critical in that it will not only assist in meeting long-term reliability goals, but it will also assist in meeting short-term demands placed on the water supply system during critical dry years. As a signatory to the California Urban Water Conservation Council's Memorandum of Understanding (adopted by our Board in 1991), the District is committed to implementing a number of Best Management Practices (BMPs) for urban water conservation. The CVPIA also requires implementation of various BMPs related to agriculture.

The Water Conservation Program's goal, as identified in the 2005 Urban Water Management Plan (UWMP), is to reduce yearly baseline water demands by a total of 98,000 AF by the year 2030. To date, the District has reduced the yearly baseline water demand by 39,000 AF. As stated in the UWMP (p.134), "[The] conservation efforts planned between now and 2030 will offset about half the additional water supplies needed to meet increased demand."*(Ends policy 2.1.8)*

Figure 3-1, shown below illustrates the progress that the District is making to reach this goal.

FIGURE 3-1
Annual Water Savings From Conservation Programs



Between 1990 and June 2006, the District accomplished the following:

Residential Programs	Totals
Residential Ultra-Low-Flush Toilets (1.6 gallons per flush) installed	243,144
Residential high-efficiency (1.2 gallon per flush) toilet (HET) rebates	234
Residential water-efficient washing machine rebates	58,463
Low-flow showerheads distributed	131,000
Faucet aerators distributed	93,100
Water-Wise House Calls (residential surveys) completed	20,895
Commercial Programs	**Totals**
Commercial ultra-low-flush toilets installed	9,522
Commercial water-efficient washing machine rebates	2,499
Water-efficient pre-rinse sprayers installed in restaurants	2,665
Commercial high-efficiency toilets (HETs) installed	2,154
Landscape Programs	**Totals**
Irrigation surveys for large landscapes completed	734
Weather-based or Evapotranspiration (ET) Irrigation Controllers installed	223

Of the aforementioned accomplishments, residential and business Ultra Low Flush Toilets (ULFTs) and HETs contributed to over 54 percent of the annual water savings. Faucet aerators and showerheads respectively contributed 14 percent and 9 percent of the savings. Water efficient washing machines contributed 2.7 percent of countywide annual water savings. Other programs, such as the large landscape audits, Water Wise House Calls and business improvements (excluding the ULFTs) collectively account for 20 percent of the annual water savings.

Program Highlights:

Residential Water-Efficient Clothes Washer Rebate Program: In FY 2005–06, the Water Use Efficiency Unit, in conjunction with other Bay Area water agencies continued to offer a rebate for residential water-efficient washing machines. This is a DWR grant-funded program. Due to this additional funding the District is able to increase its rebate amount to $100-$150, depending on the efficiency of the machine. As a result, there has been an increase in the number of rebates issued for the most efficient machines, thereby maximizing water savings. The District also offers a commercial High-Efficiency Clothes Washer Rebate Program. The current rebate amount per machine is $400 and nearly 2,500 rebates have been issued since the program commenced.

Residential High-Efficiency Toilets: In FY 2003–04, the Water Use Efficiency Unit launched the High-Efficiency Toilet Rebate (HET) Program. This program provides a financial incentive of $125 for single-family homes and multi-family complexes for the purchase of toilets which flush 1.28 gallons or less. HETs are an emerging technology which has a great potential for water savings. Single family residences can replace up to three non-ultra low flush toilets (toilets which use more than 1.6 gallons per flush) while multi-family complexes are only limited by the number of non-ULFTs they currently have.

Commercial Retrofits: Two DWR grant-funded programs were launched in 2004: the High-Efficiency Toilet (HET) Installation Program, a full-installation program placing 1.0 gallons-per-flush toilets in commercial establishments, and the High-Efficiency Medical Equipment Rebate Program, offering rebates for water-efficient x-ray fill processors and water-efficient dental vacuums. For the Commercial HET Program, nearly 2,500 toilets were installed in commercial establishments through July 2006. Through the High-Efficiency Medical Equipment Rebate Program, four water-efficient x-ray film processor rebates, at $3,000 each, were distributed to a local hospital.

Pre-Rinse Spray Valve Installation Program: The District participated in the statewide, CPUC-grant funded Pre-Rinse Spray Valve Installation Program, also known as "Rinse & Save." Since the start of the program in FY 2002–03, over 2,600 high-efficiency spray valves have been installed in restaurants and commercial kitchen facilities in Santa Clara County, helping to save water and energy (since the sprayers reduce hot water use).

Water Efficient Technologies: The District co-funds the WET (Water Efficient Technologies) Program, along with the City of San Jose, which offers rebates to commercial and industrial water customers throughout the tributary area of the San Jose/Santa Clara Water Pollution Control Plant for the implementation of process and equipment changes that reduce water needs and wastewater discharges. In 2001, the District expanded the WET Program to cover all of Santa Clara County (i.e., non-tributary areas of the county) and covers the full cost of the WET projects outside of the tributary area. Through FY 2005–06, 91 sites have received $1,635,468 ($837,074 is the District's portion) in financial incentives, resulting in 7,145 acre feet in savings.

Commercial Water Survey Program: The Water Use Survey Program, which resumed in FY 2004–05 and continued into FY 2005–06, provides free water use surveys to commercial, industrial, and institutional establishments. Water-saving measures are evaluated and recommended in the resulting water use survey reports. The goal of the program is to conduct a total of 45 water use surveys. For the 26 water use survey reports that have been completed, implementation of the recommended measures would result in water savings of about 4 million gallons per day.

Web-based Irrigation Budgets: In late FY 2001–02, the Water Use Efficiency Unit started a program that will calculate water budgets for large landscape sites and land area for different crops. The District, utilizing multi-spectral images and different classification methods has calculated the square footage of irrigated landscape for approximately 50,000 irrigation-only and mixed-use commercial accounts that are distributed over a 900 square-mile area. We are now in the process of entering this data into a web-based database which will then calculate a site specific water-use budget. The database (which will be accessible to property owners, managers, landscapers and water agencies) will include both a table and graph comparing a recommended amount versus what the site is actually using. The District was awarded $406,000 in CALFED grant funding from the California DWR to help fund this project.

Weather-Based or Evapotranspiration (ET) Controllers: The Evapotranspiration (ET) Controller Pilot Program for both residential and commercial properties has now been completed. The target participants were the top 20 percent of residential/small commercial water consumers and will be used to determine the amount of outdoor water savings that can occur with the use of ET Controller technology. The program began in June 2003 and resulted in the installation of 175 residential and small commercial ET controllers.

The District also applied for and was awarded Proposition 13 grant funding in conjunction with six other Northern California water agencies and several Southern California water agencies including the Metropolitan Water District of Southern California. The grant will fund the installation of approximately 650 controllers over three years, with 75 percent targeted to be installed in locations with over one acre of irrigated landscaping. The new Weather-Based Irrigation Controller Installation program launched in December 2005.

Garden Soft Software: The District coordinated with Garden Soft Software to develop the residential Water-Wise Gardening for Santa Clara County CD-ROM. This interactive CD-ROM showcases over 1,000 native, drought-tolerant and water efficient plants and features the District's landscape design brochure "Rules of Thumb for Water-Wise Gardening." This software will be used to promote water efficient plant selection and garden design at District workshops and selected events.

Water-Wise Demonstration Garden: The District is also undertaking a Water Wise Demonstration Garden Project. Currently in the design phase, the goal of the demonstration garden is to develop a unique, one-of-a-kind, demonstration garden that promotes water use efficiency in landscaping. The garden will be an

educational resource, test facility, and learning center providing environmentally sound and cost-effective landscaping alternatives. The primary purpose of the garden is to educate the general public on the use of water wise plants while promoting efficient irrigation technologies and recycled water.

Mobile Lab: The District is in the ninth year of a Mobile Lab Program, which provides county farmers with on-site irrigation system evaluations and recommendations for efficiency improvements. The District's Agricultural Water Use Efficiency and Nitrate Management programs continue to work closely together and offer financial incentives to encourage more efficient water use and nitrate (fertilizer) management. The In-field Nutrient Assessment Assistance Program (INAAP) matches fertilizer use and irrigation to crop needs. To date, 316 sites, representing 86 growers, have received the Mobile Lab field tests bringing the total annual potential savings to 5,840 AF.

Some changes in Mobile Lab eligibility were made in 2003. The first was the addition of an irrigation system evaluation requirement in order to link the discount more closely to the District's goal of water use efficiency. The second was a limitation of the duration of qualification to three years, after which the grower would have to obtain a new irrigation system evaluation to maintain eligibility for the discount. The three year time limit is imposed because, over time, the efficiency of an irrigation system will degrade in the absence of a maintenance program.

The Water Use Efficiency Unit works with various committees and organizations, such as the Board's Landscape Advisory Committee, California Native Plant Society, Master Gardeners of Santa Clara County, and the Santa Clara County Farm Bureau to develop water conservation programs.

Managing Groundwater Recharge

The District operates ten reservoirs that conserve water for later recharge into the groundwater subbasins or treatment at one of the District's three water treatment plants. The three interconnected subbasins (see Groundwater Subbasins and Major Recharge Systems map, Appendix C) have approximately 530,000 AF of potential operational water storage and normally provide about half of the county's annual water supply.

Groundwater basins are naturally replenished by rainfall, water percolating through the beds of streams, and other sources. As natural recharge is not sufficient to replenish the amount of groundwater withdrawn annually, the District conducts an active managed recharge program. Groundwater recharge is critical for ensuring a reliable water supply, storing water for use during droughts and shortages, and preventing land subsidence, which is very costly to the community. The District's managed recharge program replenishes groundwater storage through more than 300 acres of off-stream ponds and 30 creeks. In addition to local water, these facilities also percolate imported water into the aquifer. The annual average recharge capacity of these systems is approximately 138,000 AF.

The Santa Clara Valley Subbasin underlies the northerly portion of the Santa Clara County and includes the majority of the streams and recharge facilities operated by the District. In 2005, it is estimated that the District replenished this subbasin with approximately 70,100 AF of locally-conserved and imported water. The Coyote and Llagas subbasins in the southerly portion of the county were replenished with approximately 33,300 AF of locally-conserved and imported water. *(Ends policies 2.1.2, 2.1.3)*

Long-Term Planning for Water Supply

As the water management agency and water wholesaler for Santa Clara County, the District is responsible for planning the county's long-term water supply. Ensuring a safe and reliable water supply in the face of periodic droughts and increasing competition for water supplies from other urban, agricultural and environmental water users throughout the state is a significant challenge.

The District's long-term water supply planning combines integrated water resources planning with watershed stewardship. This provides a robust long-term and sustainable water supply planning approach that is designed to meet the diverse water resource needs of communities across Santa Clara County. Watershed stewardship plans that incorporate water supply goals and objectives as key planning elements have been developed for four of the five watersheds in Santa Clara County.

An Integrated Water Resources Planning (IWRP) process is used by the District to make sound long-term water supply investment decisions. The IWRP process approaches water supply issues broadly and inclusively, incorporating community involvement and flexibility to respond to changing and uncertain future conditions. The District's first IWRP document was finalized in 1997 (IWRP 1997). Periodic updates are scheduled as part of the IWRP process to monitor and react to changing conditions. The District's Integrated Water Resources 2003 Planning study (IWRP 2003) provides a planning framework for future water supply investment options to meet the Board's policy that "There is a reliable supply of healthy, clean drinking water." IWRP 2003 is designed to be an on-going process and to provide an incremental and flexible implementation strategy in order to be able to plan for and react to the many challenges of the future. The main challenges that IWRP 2003 addressed include: dry year supply shortages, drinking water quality concerns related to both surface water and groundwater, population growth statewide and in the county, environmental water needs and fisheries protection measures that impact the reliability of imported and local water supplies, infrastructure failure risks, unanticipated changes in water demand due to land use changes, and long-term climate changes that impact availability of water supplies and controlling costs.

The IWRP 2003 study's principal recommendation was to safeguard and maintain existing supplies, infrastructure, and programs to ensure their long-term viability. The protection of the baseline is vital to ensuring reliability. IWRP 2003 also recommends a number of near-term actions to be implemented between now and 2010, as well as strategies to keep longer-term options open. As near-term actions are being implemented, the District will continuously monitor for risks as well as opportunities that could trigger the need for longer-term water supply investments.

The District completed its Urban Water Management Plan (UWMP) in December 2005, pursuant to California Water Code Sections 10610 through 10657 (the Urban Water Management Planning Act). The Act requires urban water suppliers such as the District to review update and adopt an UWMP at least every five years. UWMP 2005 updates the District's water demand projections based upon Association of Bay Area Governments (ABAG) 2005 projected increases in population and job growth to 2030 and demands projected by major water retailers. Completion of the Urban Water Management Plan allows the District to remain eligible for state water bank assistance and for state funding managed by the California Department of Water Resources.

The District's UWMP is prepared in coordination with water retailers (who also must prepare their own UWMPs), the County, and local cities and towns. As part of this work, the District performed demand studies using the growth projected in the cities and county general plans; population growth projections from the state and the regional ABAG; and water demands projected by major water retailers.

A key finding of the UWMP 2005 is that, in addition to investing in new supplies, the District must also make significant investments to maintain and safeguard existing water supplies, infrastructure, and programs to ensure a reliable water supply into the future. The District is currently undertaking a project to examine and assess these existing water supplies, infrastructure and programs in an effort to ensure they can be sustained into the future. The District will periodically monitor these to determine if additional investments are needed to sustain or enhance these critical supplies, programs or infrastructure. The District is also moving to create a systematic approach to Water Utility Enterprise investment decision making by utilizing the IWRP investment decision making tools. The District's Asset Management Programs, Capital Improvement Program, master planning, and strategic planning will support this decision making framework.

In addition to investing in existing and future water supplies and infrastructure, the District must continue to develop and promote partnerships to ensure sustainability. The District works with the County of Santa Clara, cities, water retailers, industry stakeholders, a variety of community groups, the San Francisco Public Utilities Commission (SFPUC), the Bay Area Water Supply and Conservation Agency (BAWSCA), and neighboring local and regional water management agencies. The District entered into a Memorandum of Understanding (MOU) with SFPUC in 2004 to coordinate water supply planning activities and participated in some of SFPUC's planning studies.

The District is taking a leadership role in the Bay Area Water Agencies Coalition (BAWAC) in coordinating water planning and management activities among agencies in the nine-county Bay Area region. One of the current BAWAC activities is to develop a Bay Area-wide Integrated Regional Water Management Plan that encompasses all the water resources management programs and activities including: water supply and water quality, storm water and flood control, watershed management and ecosystem restoration, and wastewater management and recycling. The District is also partnering with ABAG and other local government and community leaders in the Bay Area Water Forum to promote dialogue to link land-use and water management and to promote common interests in the region.

The District is working with San Benito County Water District (SBCWD) and Pajaro Valley Water Management Agency (PVWMA) in developing an Integrated Regional Water Management Plan that addresses water supply and water management issues in the southern region. The District also entered into an MOU with SBCWD and PVWMA in 2004 to coordinate water supply planning and management activities.

The District participates actively in statewide, regional and local planning processes and promotes strategic partnerships that can provide improvements in water supply reliability, regulatory certainty, drinking water quality and facilitate program and project implementation.

To maintain sufficient water supplies to support economic growth and maintain the quality of life in our community, the District aims to ensure adequate water supplies in both the short- and long-term. Ensuring adequate supplies for the future has two aspects: maintaining the reliability of existing supplies through both wet and dry years and developing access to additional supplies to meet future needs. *(Ends policies 2.1.3 and 2.1.4)*

Water Supply Augmentation

Ensuring the availability of 300,000 AF annually to 15 cities spread over 1,300 square miles requires operation of the following facilities:

- 10 surface reservoirs with a capacity of 169,000 AF
- 17 miles of canals
- 4 water supply diversions
- 393 acres of recharge ponds
- 91 miles of controlled in-stream recharge in the county
- 142 miles of pipelines
- Three water treatment plants
- Three pump stations

To manage the county's water storage reservoirs, both surface and underground, the District operates and maintains a countywide conveyance and distribution system (see Water Conveyance, Treatment, and Distribution map, Appendix C). The system conserves local runoff for either recharge into the groundwater basin or treatment at one of the District's three water treatment plants. The District also operates several local

pipelines to transport imported raw water and locally-conserved water to various locations within the system for treatment and distribution or for groundwater recharge.

The District has long-term agreements to purchase water to augment local water supplies through the CVP and SWP facilities. In addition, the District supports the development of recycled water and promotes water conservation in homes, business, and agriculture. A significant effort is also dedicated to preparing long-range water supply plans, including planning for droughts. The principal activities of the District in augmenting water supplies are described below. *(Ends policies 2.1.2, 2.1.3 and 2.1.4)*

Resource Protection

Preserving the quality of water supplies is more cost-effective than treating contaminated or degraded water. Pursuant to the District's mission to provide high-quality water to the county, the District continually addresses water quality problems that threaten the delivery of safe, reliable, high-quality water. This is to ensure that water delivered to the District's retailers meets or exceeds all state and federal drinking water regulations. The District also responds to unforeseen water quality issues and acts to ensure the continued ability to deliver high-quality water.

The following subsections describe the District's activities to protect groundwater and surface water:

Nitrate Management

One threat to groundwater supplies is nitrate contamination. High nitrate concentrations in drinking water can cause health problems in infants less than six months of age. Nitrate contamination is a particular concern in the southern portion of the county, but elevated concentrations of nitrate have also been reported in parts of the North County. The District has identified the main sources of nitrate in the South County/Coyote Valley area as fertilizer applications, septic systems and animal enclosures. The District continues to implement a Nitrate Management Program to monitor nitrate occurrence, reduce nitrate exposure and reduce nitrate loading throughout Santa Clara County.

To monitor long-term trends in nitrate occurrence, the District collects data from more than 60 wells, supplemented by data from public water suppliers. The data indicate that, since the mid-1980's, nitrate concentrations appear to be declining in the Santa Clara Valley Subbasin. Monitoring data since 1998 suggests that, in general, nitrate concentrations in the Coyote and Llagas subbasins are either steady or decreasing.

To reduce exposure to nitrate, the District offers a free nitrate analysis to all private water supply well users. Since 1998, more than 600 tests have been conducted. More than half the wells tested have exceeded the maximum contaminant level of 45 milligrams per liter of nitrate. Test recipients are given a copy of the results along with a fact sheet detailing what nitrate is, where it comes from, what the health risks are, how to remove nitrate using point of use treatment systems and how to prevent further contamination.

To reduce nitrate loading, the District has launched a series of workshops in conjunction with the University of California Cooperative Extension, Department of Agriculture, Farm Bureau and Natural Resource Conservation Service. Free test kits, pocket guides, and brochures related to nitrate management in agriculture were distributed at the workshops. Over 250 people have attended these events.

To encourage more efficient water use and nitrate management, the District provides free in-field technical assistance on nutrient and irrigation management to growers through the In-field Nutrient Assessment Assistance Program (INAAP). This program directly addresses water and fertilizer use efficiency, their inter-

relationships, and groundwater protection. The District offers incentives to eligible growers that participate in INAAP, in addition to those available for Mobile Lab participation.

More than 50 Santa Clara County growers, accounting for approximately 16,000 acres or about 85 percent of the agricultural lands in the District groundwater charge zones, participated in the 2006 local and regional INAAP. *(Ends Policy 2.1.6)*

Perchlorate

In late 2002, perchlorate, a chemical used in the manufacturing of rocket fuel, road flares and fireworks, emerged as a significant contaminant in the Llagas Subbasin. The Olin Case in Morgan Hill has now affected more than 800 water supply wells with low levels of perchlorate in the unincorporated area of Santa Clara County known as San Martin, as well as Morgan Hill and Gilroy. The Central Coast Regional Water Quality Control Board (RWQCB) is providing regulatory oversight of the Olin Case and is directing the investigation and cleanup for perchlorate contamination in the San Martin area. Currently, the known extent of the plume extends 10 miles from the site to the Pacheco Pass Highway. The number of wells exceeding California's notification level for perchlorate has decreased dramatically in the last 18 months, from more than 200 wells above 6 ppb to 31 wells in December 2005.

Perchlorate has also been found in domestic and municipal wells located north and ostensibly upgradient of the Olin site. Four of the City of Morgan Hill's supply wells have had perchlorate detections. The RWQCB has required Olin to conduct additional investigations into groundwater flow patterns in the area northeast of the site. Sporadically, low levels of perchlorate have also been detected in water supply wells in the Coyote and the Santa Clara Valley subbasins.

Staff is continuing to support the Central Coast Regional Board's regulatory effort by providing groundwater data and information, technical assistance on investigation and cleanup oversight efforts, and logistical and technical support for Perchlorate Community Advisory Group meetings. In addition, staff is working closely with the Regional Board, County of Santa Clara, and the cities of Morgan Hill and Gilroy to ensure that the Regional Board's long-term corrective action plan meets all of the community's interests for water supply and groundwater cleanup. The District advocates that the responsible party must restore beneficial uses of groundwater for the Llagas subbasin, and that the Regional Board enforce State Water Board Resolution 92-49, which requires cleanup of perchlorate to background levels.

On March 10, 2005, RWQCB released the final Cleanup and Abatement Order. This Order, together with other orders requiring wellhead treatment, bottled water delivery, and data collection to resolve the "northeast flow" issue, comprise the comprehensive time-certain solution that the District and other local agencies have been promoting.

The District is developing projects to address perchlorate impacts using congressional funding. The first set of projects will use $745,600 of *Environmental Protection Management* funds, which require no matching funds from the District. *(Ends Policy 2.1.6)*

Groundwater Monitoring Improvements

In 2004 and 2005, the District completed installation of nine wells funded by the Department of Water Resources under a grant of nearly $250,000; two additional wells were funded partly by the grant, with the remainder paid for by the District. In addition, the USGS installed a final well under its cooperative agreement with the District in 2005. The District also obtained access agreements to collect data from additional private wells. The District now has groundwater quality or water level data on over 1171 wells, with 542 of these being

actively monitored. The District collects water quality and water level data from wells throughout the county to manage, protect, and better understand the groundwater basins. *(Ends policies 2.1.5 and 2.1.6)*

Groundwater Guardian

The District has been designated as a Groundwater Guardian by the Groundwater Foundation, based on the District's groundwater protection efforts, since 2000. The Groundwater Foundation is a nationally recognized, private, non-profit, educational organization dedicated to protecting groundwater resources from contamination and over-drafting through outreach and education. As a Groundwater Guardian, the District supports community outreach and protection efforts, develops educational materials and provides technical assistance for groundwater protection activities. The District supports the Perchlorate Community Advisory Group's Groundwater Guardian Community work. *(Ends Policies 2.1.5 and 2.1.6)*

Underground Storage Tank Fuel Cleanup Program

The District's Groundwater Cleanup Oversight Programs Unit has been responsible for the Leaking Underground Storage Tank Oversight Program (LUSTOP) since 1988. The program oversees the investigation, cleanup, and closure of cases where soil and/or groundwater have been affected by petroleum fuel and additives from leaking underground storage tanks (USTs). The District officially transferred the program to the County of Santa Clara Department of Environmental Health on June 30, 2005.

More than 2,450 fuel leak cases have been reported in the county, and 80 percent of these cases have received regulatory closure by the District or other regulatory agencies. Sixty-six (66) open sites are overseen by the RWQCBs and, as of July 2005, all 402 of the remaining active cases will be overseen by the County of Santa Clara Department of Environmental Health. District staff will continue to provide minimal assistance and advice to Santa Clara County staff as needed. *(Ends Policy 2.1.6)*

Solvents and Toxics Liaison Program

The District's Groundwater Cleanup Oversight Programs Unit provides peer review and regulatory liaison on solvents, toxics, perchlorate, and other contamination cases that threaten groundwater quality. Activities that use chlorinated solvents and recalcitrant toxic chemicals can pose a significant threat to the groundwater basin and many of these activities have resulted in releases to soil and groundwater. The large number of electronics manufacturing plants, together with heavy industry and military facilities in Santa Clara County, has resulted in over 600 solvents and toxics releases that have affected the groundwater. The District provides peer review, tracks cleanup progress, and participates in several advisory committees to ensure that local groundwater resources are protected.

The District is also performing an evaluation of the effects of releases of perchloroethelyne (PCE) from dry cleaners and other facilities that use PCE and has identified more than 1,000 former locations of dry cleaning operations that have operated in the last 70 years, in addition to the 220 active dry cleaning plants in Santa Clara County. District staff will be requesting the Regional Boards to ensure that possible PCE contamination associated with these operations is investigated. *(Ends Policy 2.1.6)*

Well Ordinance Program

The District protects the quality and quantity of the county's groundwater resources by ensuring that all wells in the county are constructed, maintained, modified, and destroyed in compliance with the District Well Ordinance and the State Well Standards.

The Well Ordinance Program includes permitting, tracking, inspecting, and violation enforcement of all wells in the county. *(Ends policy 2.1.5)* During FY 2005–06, the District:

- Permitted 1,955 wells and other deep excavations for construction or destruction
- Inspected 1,420 wells and other deep excavations constructed or destroyed
- Registered 713 new wells

HAZMAT Emergency Response Program

The District Emergency Response Team provides 24/7 response to District employee, public, and inter-agency reports of hazardous materials (HAZMAT) and other polluting substances that have been discharged or deposited in a manner that may impact District watersheds, water supplies, ground and facilities. Response activities include timely response, site reconnaissance, incident command, sampling and analysis, contaminant clean-up, interagency notification and coordination, as well as cost recovery and enforcement support. In addition to meeting water quality policies outlined in the Ends Policies, emergency response is performed to support both Clean, Safe Creeks and Urban Runoff Program commitments. *(Ends Policies 2.1.1.1, 2.1.6, 2.2.1, 2.2.1.7, 3, and 4.2)*

Urban Runoff Program

The District Urban Runoff Program is dedicated to surface water quality protection. This permit-required program conducts projects that integrate into District-wide watershed and water enterprise operations to prevent storm water runoff pollution and protect and enhance the quality of water in Santa Clara County streams and waterbodies. This includes the training of District staff and conducting outreach efforts to facilitate the improvement of stream water quality in the Santa Clara County. The program provides training and outreach and conducts monitoring to ensure the improvement of the quality of storm water that flows into streams of the Santa Clara Valley and the San Francisco Bay. Under a MOA revision approved by the District Board on December 20, 2005, the District is continuing its participation as one of 15 co-permittees in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) Municipal Storm Water Permit from the San Francisco Bay RWQCB. Additionally, the District, under its Clean, Safe Creeks and Natural Flood Protection program is extending storm water pollution prevention efforts into south Santa Clara County. Combining efforts with other local agencies allows for collaboration in countywide Urban Runoff Program activities. *(Ends Policy 2.2.1)*

Water Use Efficiency: Water Recycling and Desalination

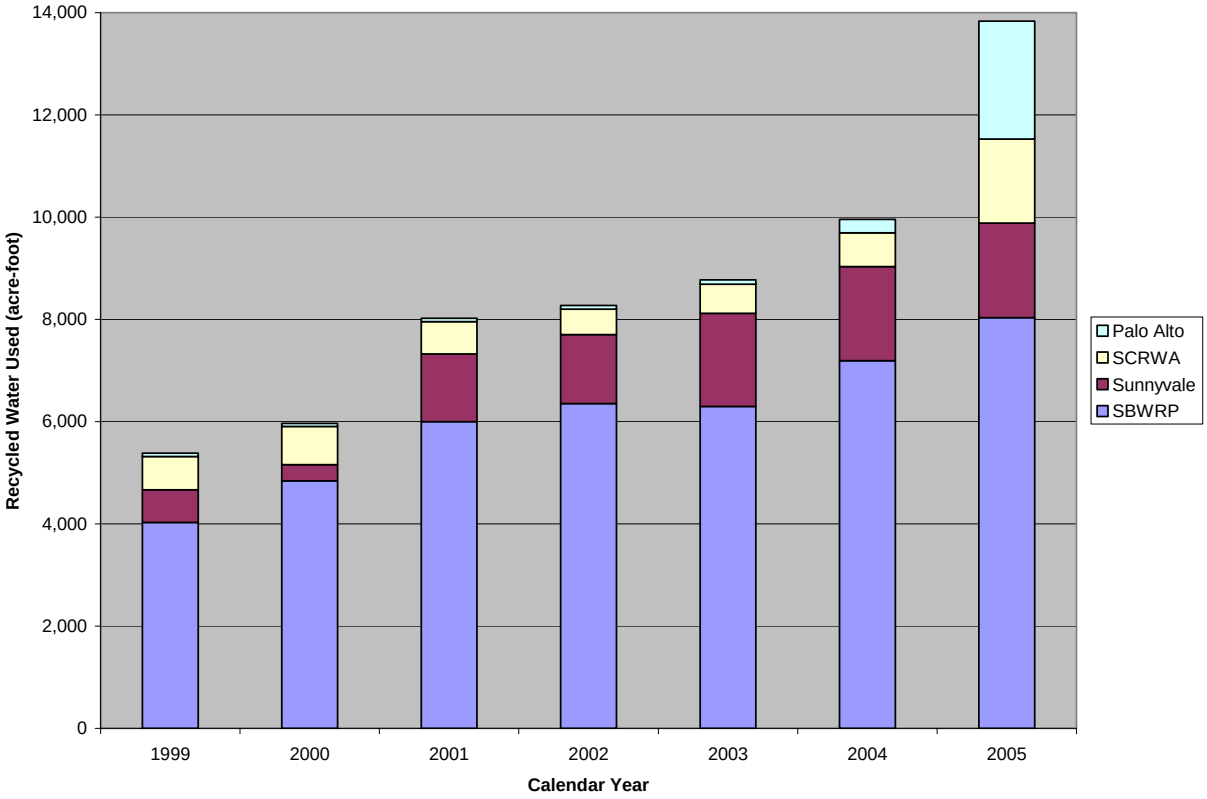
Water Recycling

The amount of recycled water used in Santa Clara County during calendar year 2005 was approximately 13,833 AF. As shown in Figure 3-2, this performance shows an increasing trend from past years. The District expects to see a slower increasing trend through 2006 since two major recycled water users (power plants) started using recycled water in 2005 and no such big user is in the 2006 planning horizon. It is estimated that recycled water accounted for approximately 3.7 percent of the total countywide water used in year 2005. The District's Board policy aims for recycled water to be 5 percent of total water use in the year 2010 and 10 percent of total water use by 2020. *(Ends policies 2.1.7.1 and 2.1.7.2)*

The District's 2005 UWMP indicates that based on the projections of recycled water uses for the future, the District will be very close to meeting its recycled water target by 2010 and will not be meeting its target by 2020 unless significant effort and resources go into meeting this target for recycled water expansion. The District's commitment to meeting this 2020 target is validated in this statement in the UWMP: "The District is considering options for additional recycling to meet targets including advanced recycled water treatment and use of that

water for groundwater recharge and stream flow augmentation to further expand water recycling within Santa Clara County" (UWMP, p. 41).

FIGURE 3-2
Recycled Water Used in Santa Clara County



Note: In plant recycled water usage is reflected in Figure 3-2, beginning in 2005.

Desalination

The IWRP identifies desalination as a building block in the District's long-term future water supply portfolio. The District anticipates meeting the 2003 IWRP target to desalinate 10 million gallons per day in the future, by continuing the direction undertaken through our projects, joint partnerships and studies.

Projects:

The Water District is participating in the planning, design and construction of recycled water facilities in Silicon Valley. Among these are:

Silver Creek Pipeline: As part of an agreement with the City of San Jose, the District funded approximately $5.5 million (25 percent of cost) for the actual construction cost of the Silver Creek pipeline. Construction was completed in mid-2005. Besides providing about 3.5 million gallons of recycled water a day from the San Jose/Santa Clara WWTP to the Metcalf Energy Center in 2005 and potentially to other customers along this pipeline alignment, this pipeline provides the District with a guaranteed 5 million gallons per day of recycled water for future use in Coyote Valley.

South County Recycled Water Master Plan: The District and the South County Regional Wastewater Authority (SCRWA) developed a Recycled Water Master Plan. This Master Plan recommends immediate-, near- and long- term system improvements in the recycled water system intended to serve the Uvas/Llagas area. The District plans to invest approximately $3.2 million towards projects recommended in the immediate-term Master Plan. The District and SCRWA anticipates receiving up to $2.23 million from the state to help fund these immediate-term project construction costs, the total cost of which is $7.4 million. CEQA compliance was completed in 2005 and construction began in 2005 for the immediate term project which includes 4,800 feet of distribution pipeline, a 3-million-gallon recycled water reservoir, a 3-million-gallon pump station and 6-million gallon-per-day tertiary filter expansion.

Agency Agreements:

Rebates Agreement: The District is helping the cities (San Jose and Sunnyvale) in production and expansion of recycled water within the county through a rebate agreement with South Bay Water Recycling and the City of Sunnyvale that pays $115/AF for recycled water used to offset District potable supplies. The cost to the District is anticipated to be approximately $1.2 million for FY 2005–06. The District began exploring more active partnership roles in water recycling with South Bay Water Recycling and is re-evaluating the incentives of passive reimbursement versus other incentives.

Producer Wholesaler Agreement/Wholesaler Retailer Agreement: The District, South County Regional Wastewater Authority, and the cities of Gilroy and Morgan Hill entered a partnership agreement to develop a marketable water recycling program in South County and provide for future expansions.

Studies:

The Santa Clara Valley Water District is conducting studies and research investigating the potential implications of recycled water usage, and attempting to provide solutions to lead to expanded uses of recycled water in this county. The District is also investigating the feasibility of ocean, bay and brackish desalination in this county. Among the studies being undertaken are:

Groundwater Monitoring: The Water District has developed a groundwater monitoring network to detect any changes in groundwater quality in areas using recycled water. Groundwater monitoring at recycled water use sites is an on-going operation.

Water Softener Pilot Project: The District successfully completed this pilot study in December 2005. The objectives were threefold: 1) to assess the optimal value of incentive offers necessary to attract customers to use more efficient water-softening technology; 2) to reduce the amount of salt these systems add to wastewater impacting recycled water; and 3) to conserve water and energy. Approximately half of the funding for this project came from a Proposition 13 grant. The program issued 400 rebates ($150 each) to single-family houses. The results of this pilot study yielded a savings of 1.3 million gallons of water per year and reduction of 240,000 lbs of regeneration salt which would otherwise be discharged to wastewater treatment plants. This pilot study demonstrated the effectiveness of partnership with water retailers, water softener manufacturers and distributors. In 2005, the District, in partnership with San Benito County Water District, was awarded a DWR grant of $150,000 for each agency for their own larger countywide water softener rebate project. In addition, in 2005, the District and the City of Gilroy agreed to have an additional 200 rebates for South County residents. The $30,000 cost for the 200 rebates is to be paid for by the City of Gilroy.

Industrial Application of Recycled Water: The District is studying innovative uses of recycled water at a chip manufacturing facility that could be a showcase project for other industrial water users. The project began in late June 2004. Applied Materials is a large semiconductor equipment manufacturer that was willing to partner with the District and lend its facilities for innovative testing of their manufacturing process using recycled water

and share costs. This project will be completed in 2006.

Streamflow Augmentation Research using Recycled Water: The District, as a subcontractor to MWD has secured DWR funds that will account for approximately 50 percent ($300,000) of the total project costs (i.e., $600,000) to study use of advanced treated tertiary recycled water for stream flow augmentation. The objective of this project is to assess the potential impact of large-scale augmentation of the Coyote Creek flow with tertiary treated water on the water quality of the creek and the underlying groundwater.

Low Fouling Membrane Pilot Work: In 2005, the District began a pilot study to determine if low-fouling reverse osmosis (LFRO) membranes can be used to treat recycled water to an advanced level at a lower cost than the current method. The current method includes microfiltration (MF) as a pretreatment before reverse osmosis. If it is feasible to use LFRO on SBWR tertiary recycled water, the cost savings for advanced treated recycled water would be tremendous. The District is partnering with the City of San Jose on this project. MWD will use federal funding to provide a grant to SCVWD for this work.

Electo-dialysis Reversal/Reverse Osmosis Pilot Work: The District has completed a joint study with the City of San Jose to analyze electro-dialysis reversal/reverse osmosis pilot work in recycled water treatment. The District received $50,000 in grant money from the California Energy Commission in 2005 for this completed project. The District paid approximately $63,000 of its own funds for the District's share. The City of San Jose, USBR and other project partners collectively paid the remainder of approximately $250,000.

Solutions Project: The District began the "Solutions Project" to help the cities of Mountain View, Palo Alto, Milpitas, and San Jose with recycled water use. This project will provide solutions so that recycled water, properly treated and used, will not be a contributing factor to any redwood tree or landscape decline. This project is to perform site specific investigations for sustainable use of recycled water. Two golf courses and one school will have soil samples analyzed to determine the quality required of irrigation waters to maintain soil structure and not impede drainage. The results of these investigations will be used in conjunction with investigations of the salt tolerance of coast redwood to develop site specific management plans to enable the sustainable use of appropriately processed recycled water at these sites. Work on this project continued in 2005 and will be completed by the end of 2006.

Irrigation water quality requirements of Santa Clara County soils: Column studies will be undertaken on soil samples representing major soils in the Santa Clara and Llagas valleys to determine the water quality requirements necessary to maintain their structural integrity under irrigation and winter rainfall.

Bay Area Regional Desalination Study: In 2003, the District with East Bay Municipal Utility District, Contra Costa Water District and San Francisco Public Utility Commission began undertaking a project to analyze the feasibility of a regional desalination facility. The IWRP Study 2003 identifies desalination as a building block in the District's long-term future water supply portfolio. Desalinated water could be used as a long-term water supply, an emergency supply, a drought supply and an intermittent supply during shutdowns for maintenance by the various water agencies in the San Francisco region. In 2005, the partners jointly applied for and were awarded $250,000 in state grant funds for completing a $500,000 feasibility study. Work on this feasibility study will be completed by the end of 2006. In 2006, the partners applied for state grants to construct an actual pilot desalination test unit. The partners were notified in mid-2006 that they will receive approximately $949,000 towards a $1.9 million pilot facility.

Pajaro Watershed Brackish Groundwater Desalination Project: The District and San Benito County Water District are the joint recipients of a $245,000 state grant to conduct a $490,000 brackish water feasibility study in the Pajaro Basin. Work on this project began in 2005, and if determined feasible, institutional arrangements will need to be negotiated and in place before both parties receive water supply benefits.

Brackish Desalination Pilot Study: The District, as a subcontractor to MWD has secured DWR funds that will

account for 50 percent (i.e., $257,000) of the total project costs to perform a pilot study to evaluate the feasibility of using innovative brackish groundwater treatment technology for brackish water desalination. The District partnered with Stanford University in this project and work will be completed in early 2007.

Flood Protection and Stream Stewardship Program

To address community expectations and the District Board's Ends Policies on quality of life in the county, the District is using additional funding from its voter-approved special tax to provide for restoration and enhancement of natural resources within our watersheds. This element is an important part of the Clean, Safe Creeks and Natural Flood Protection Plan approved by county voters in November 2000.

The Clean, Safe Creeks plan also protects water quality in our creeks and bays and benefits water supplies. Portions of the additional funding is used to keep our creeks cleaner and free from trash and pursue improved detection and management of toxic materials (such as mercury and diazinon) that pollute our water supplies, creeks and bay.

The District also participates in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) as a co-permittee. The objective of the SCVURPPP is to protect stream resources by preventing pollution from entering our creeks and the Bay. Each of the co-permittees implements its own, agency-specific storm water pollution prevention program. These activities, and the level of implementation, are specified in performance standards. Currently, the District implements Performance Standards for:

- Illicit Connection and Illegal Dumping Elimination Activities
- Industrial/Commercial Discharger Control Program
- Public Streets, Roads, and Highways Operation and Maintenance
- Storm Drain System Operation and Maintenance
- Water Utility Operation and Maintenance
- Planning Procedures
- Construction Inspection

In addition, the District collaborates in various program-wide efforts, including public education and monitoring. *(Ends Policy E.2.2.1)*

ENDS POLICY E-3

Ends Policy E-3 states, *"There is an enhanced quality of life in Santa Clara County through the protection and enhancement of watersheds, streams, and the natural resources therein."* This policy strives to accomplish three goals. The first goal is to ensure that mitigations are implemented to protect watersheds, streams, and the natural resources therein. The second goal is to implement environmental enhancements to improve watersheds, streams, and the natural resources therein. And, the third goal is to make additional trails, parks and open space along creeks and in the watersheds that are accessible to the public when reasonable and appropriate. Watershed Operations is primarily responsible for accomplishing this Ends Policy. However, the Water Utility Enterprise does contribute to carrying out this policy. The program and the specific ends policy(ies) that the program is designed to fulfill is as follows:

Stream and Watershed Management

The District plays a key role in balancing the water needs of a growing economy with those of the environment. The District has initiated a watershed management approach as a responsible steward of watersheds, including streams and riparian corridors. For example, through the Fisheries and Aquatic Habitat Collaborative

Effort (FAHCE), the District has been working since 1997 with federal, state, and local agencies, as well as local environmental groups to improve conditions for local fisheries while meeting the demands for a reliable water supply.

Stream maintenance projects are planned, designed, constructed, and operated in an environmentally sensitive manner to address reservoir water storage, and in-stream and off-stream groundwater recharge. Project specific measures are taken to protect sensitive species, water quality, fisheries, riparian and wetland resources. New management practices include scheduling the work to avoid impacts to nesting birds, removing sediment from half of the channel in alternating years on certain creeks, diverting flows around a work site, reseeding disturbed areas and relocating fish.

Together, the foregoing activities strive to protect county habitat, while accommodating water supply and other human impacts. *(Ends Policies 3.1)*

ENDS POLICY E-4

Ends Policy E-4 states, *"There is a positive District image in the community which supports the carrying out of the District's mission."* This policy strives to attain a workforce of District staff that has the knowledge and expertise in subject matter that is integral to the future of water resource management in Santa Clara County. The policy also strives for increased positive interaction with the community. Although Administration, the Office of Communications and the Governmental Relations Unit are primarily responsible for Ends Policy 4, the Water Utility Enterprise does contribute to carrying out this policy. The program and the specific ends policy that the program is designed to fulfill is as follows:

Office of Communications

The Office of Communications connects the work of the District and its Board of Directors to the general public, public officials, community leaders and policy makers. It works in partnership with the Water Utility Enterprise, Watershed Operations, Administration and Capital Programs Services to enable the Water District to communicate its mission while strengthening its relationships with the community, and communicating the value of water to the public in order to achieve its Ends Policies. Such communication efforts are an important component of water utility operations, including management of local water resources, and education and assistance with water conservation and resource protection programs, as they help ensure safe and reliable supplies.

The office develops and integrates the District's key messages through its public information, marketing, media and education efforts. The office promotes the District's brand image; serves as principal liaison to the media; develops outreach and educational information for the public; helps shape public opinion; and mobilizes support for District activities throughout Santa Clara County. *(Ends Policy 4.2)*

Government Relations Unit

The Government Relations Unit (GRU) facilitates and executes strategic external partnership activities at the federal, state, local and regional levels to support District policy objectives. The unit serves as the internal and external connection for: legislation, development of strategic support and opposition, and supplemental funding opportunities for the District. It is responsible for recognizing emerging threats and opportunities and shaping public policy and opinion in addition to building the District's image, brand and reputation. Additionally, the GRU reduces operating costs by vigorously advocating for federal and state funding of District projects to support flood protection, watershed restoration, groundwater remediation, water use efficiency and other District efforts. *(Ends Policy 4.2)*

CAPITAL IMPROVEMENTS

The District constructs and maintains reservoirs, pipelines, recharge ponds, and water treatment plants that are needed to achieve the Board's Ends Policies.

Project management and engineering services for planning, design and construction of the District's capital projects are provided by the Capital Program Services (CPS). The CPS is also responsible for the development, management, monitoring and tracking of the District's Capital Improvement Plan (CIP). This plan is intended to identify and plan for the District's five-year capital improvement spending, the sources to fund the long term plan, and the staffing level to execute the long-term plan.

Some major water utility capital improvement projects currently in progress include Lenihan Dam Outlet Modification, Water Treatment Improvement Projects Stage 2, and New Water Quality Laboratory. Each of these capital projects is designed to carry out one or several of the Board's Ends Policies. The objectives of these projects are as follows:

- The Lenihan Dam Outlet Modification Project will correct deficiencies in the outlet pipe of the dam so that the operational restrictions imposed by the California Division of Safety of Dams (DSOD) can be removed. The project is currently in the design phase with construction to begin in late 2007. The estimated total uninflated project cost is $30.4 million.

- Stage 2 of the water treatment plant process upgrades will further reduce the levels of disinfection by-products and potential for microbial contaminants in treated water and to further improve water quality. This will include switching to ozonation as the primary disinfection method instead of chlorination and installing filter-to-waste and washwater clarification facilities. The Stage 2 work also includes structural modifications to improve treatment plant reliability during seismic events and process additions to increase treatment capacity at the Rinconada plant to meet projected future demands. The improvements ensure the District's treated water quality meets or exceeds all applicable regulations and improves the reliability of the three treatment plants. Construction of the improvements at the Santa Teresa plant was completed in spring 2006 and will be completed at the Penitencia plant in fall 2006. Construction at the Rinconada plant is scheduled to begin in 2009. The total estimated present value cost of improvements at the treatment plants is $251 million.

- Construction of a new 18,400 square-foot water quality laboratory facility is planned to begin in the summer of 2006 and be completed by the fall 2007. The estimated construction cost is $16 million. New water quality regulations require an ever-increasing number of tests. The District's laboratory tests water from reservoirs before it goes to the water treatment plants for purification. It also tests treated water on a daily basis to ensure it meets all regulations. In all, the District's laboratory conducts more than 138,000 tests each year for bacteria, turbidity, hardness, pH, trihalomethanes, organic substances, metals, pesticides, fertilizers, and toxic chemicals.

  In keeping with the District's vision, the design of the new laboratory incorporates many "green" design elements including:
  - The new facility will take advantage of natural light and utilize sophisticated computer climate controls to reduce energy consumption.
  - The building will be set back 100 feet from the banks of the Guadalupe River to protect riparian plants which provide wildlife habitat.
  - The runoff water from all parking areas will be channeled to a detention basin which will filter the water through sand before it flows to the Guadalupe River.

Development of the Asset Management Program was started in January 2002 to provide a better basis for identifying long-term capital rehabilitation and replacement needs. This program's goal is to lower the cost of asset ownership and improve system reliability by establishing a life-cycle preventative and corrective maintenance schedule for each of the District's assets as well as renewal and replacement schedules. The program will identify projects similar in nature to the inspection and rehabilitation of vaults and air valves on the Santa Clara Distributary, replacement of the 48" ball valve at the Piedmont Valve Yard, and Rinconada Reservoir Roof Rehabilitation. The initial program was completed in September 2003. Due to a staffing reduction resulting from a retirement, the Condition Assessment Program established as part of the overall Asset Management Program was suspended in November 2005. However, a recent reassignment has provided the asset management unit with part time staffing that will allow condition assessment work to continue. Additionally, the AM Program continues to produce the Annual Maintenance Work Plans which are used for budget development by the Utility Maintenance Unit.

Table 3-1 shows budgetary basis expenditures for FY 2004–05, the funding for capital projects for FY 2005–06 and FY 2006–07, and planned funding for the next four fiscal years. The cumulative investment between FY 2006–07 and FY 2010–11 is projected to be approximately $217 million (uninflated).

TABLE 3-1
Capital Improvement Projects —Fiscal Years 2005–06 Through 2010–11

(Thousands of Dollars, Uninflated)

Job	FY 05 Budget Basis Actuals	FY06 Adjusted Budget	FY07 Adopted Budget	FY08 Projection	FY09 Projection	FY10 Projection	FY11 Projection
SOURCE OF SUPPLY							
91084009 Flashboard Dam Improvement	40	-	-	-	-	-	-
91084010 Dam Instrumentation	95	2,892	1,611	1,785	-	-	-
91084011 Dam Seepage	13	-	-	-	-	-	-
91084013 Geodetic Control Maintenance	40	70	-	-	-	-	-
91084014 Kirk Diversion Dam	-	-	313	807	617	-	-
91084015 Alamitos Diversion Dam	-	-	357	1,107	1,018	-	-
91084016 Coyote Diversion Dam	-	-	310	1,210	796	-	-
91094004 Recycle Wtr Christmas H - Eagle R - Gilroy SP	404	169	-	-	-	-	-
91094005 Recycled Wtr Connect, Santa Clara Conduit	0	-	-	-	-	-	-
91094006 Recycled Wtr PL Rehab	87	-	-	-	-	-	-
91094007 Gilroy Recycle Wtr PL, Immed Term	-	3,224	-	-	-	-	-
91124001 San Tomas Well Field	183	5,853	-	-	-	-	-
91154005 Water Banking	3,462	25,456	-	-	-	-	-
91154006 Water Efficient Demo Garden	-	-	260	1,481	53	-	-
91174001 Silver Creek Pipeline	5,680	2,062	-	-	-	-	-
91184008 Recycle Wtr Adv Treatment	72	2,922	-	-	-	-	-
91214007 San Luis Res. Low Point Improve	1,083	4,916	-	119	1,119	-	-
91224003 Santa Clara Tunnel Landslide	129	33	28	-	-	-	-
91224005 SC Tunnel Landslide Mitigation	-	805	55	-	-	-	-
91454006 Percholorate Capital Trmt Sys	1	-	-	-	-	-	-
91764002 Water Infrastructure Reliability	463	-	-	-	-	-	-
91794017 Water Infrastructure Baseline Improve	-	2,033	-	-	-	-	-
91854001 Almaden Dam Outlet Works	443	1,230	-	-	-	-	870
91854002 NRDA Jacques Gulch Restore	43	1,429	580	330	2,888	170	90
91874003 Calero/Fellows Dike	455	574	531	529	4,380	875	-
91904005 Lenihan Dam Outlet Modifications	1,055	4,680	19,776	1,559	502	-	-
91954001 Pacheco Pumping Plant ASD Replace	26	2,955	-	-	1,863	2,754	2,026
91C40104 Pacheco Fiber Optic Cable Replace	-	-	-	416	698	-	-
91C40194 Page Desilting System	-	-	-	-	400	580	-
91C40195 Pacheco PP Regulating Tank	-	-	-	95	-	-	-
91C40201 Santa Clara Recharge Ponds	-	-	-	600	600	5,480	8,455
Source of Supply SubTotal	**13,775**	**61,304**	**23,821**	**10,038**	**14,934**	**9,859**	**11,441**
RAW WATER TRANSMISSION & DISTRIBUTION							
62C40144 FAHCE Stevens Ck FL at Evelyn	-	-	-	-	-	-	875
62C40145 FAHCE Stevens Ck FL at Moffett	-	-	-	-	-	-	684
62C40146 FAHCE Stevens Ck FL at Fremont	-	-	-	-	-	-	596
62C40198 FAHCE Stevens Ck Multiport Outlet	-	-	-	-	-	-	117
92254003 Central Pipeline Modification	0	-	-	-	-	-	-
92254083 Central Pipeline Rehab	615	3,372	-	-	-	-	-
92264007 Vasona Addition & ADA Mods	885	56	-	-	-	-	-
92374002 Raw Water Control System	1,459	2,024	3	-	-	-	-
92464001 Coyote Canal Extension Aband	0	-					
92744001 San Pedro Recharge Facility	97	14	-	-	-	-	-
92C40215 Stevens Ck Diversion	-	-	-	-	-	-	130
Raw Water T&D SubTotal	**3,057**	**5,467**	**3**	**-**	**-**	**-**	**2,402**
TREATED WATER TRANSMISSION & DISTRIBUTION							
94084003 Instrument Upgrade	17	56	-	-	-	-	-
94084005 WTP Security Improvement	12	574	17	2,000	2,000	987	-
94194001 SCVWD SFWD Intertie	6	81	320	-	-	-	-
94384001 Penitencia Del Main Mod Valv	176	-	-	-	-	-	-
94504002 Rinconada Reservoir Roof Rehabilitation	267	715	-	-	-	-	-
94844002 Snell Pipeline Cathodic Prot	2	-	-	-	-	-	-
Treated Water T&D SubTotal	**480**	**1,426**	**337**	**2,000**	**2,000**	**987**	**-**

TABLE 3-1 continued…
Capital Improvement Projects —Fiscal Years 2005–06 Through 2010–11

Job	FY 05 Budget Basis Actuals	FY06 Adjusted Budget	FY07 Adopted Budget	FY08 Projection	FY09 Projection	FY10 Projection	FY11 Projection
WATER TREATMENT							
93084009 WTP SCADA Upgrades	490	1,867	-	-	-	-	-
93084010 WTP SCADA Security	-	-	412	-	-	-	-
93234004 PWTP Treated Water Improv Pr	8	-	-	-	-	-	-
93234025 PWTP Treatment Improv Stg 1	4	-	-	-	-	-	-
93234028 PWTP Improvement, Stage 2	24,831	4,356	577	-	-	-	-
93234031 PWTP Maintenance Building	209	615	632	2,288	120	-	-
93234032 PWTP Chemical System	4	283	-	111	1,430	139	-
93234033 PWTP Backup Generator	132	2,138	-	-	-	-	-
93234036 PWTP Backwash Pump	2	751	-	176	30	-	-
93234037 WTIP Mitigation at PWTP	609	1,934	1,729	-	-	-	-
93234038 Telephones at PWTP	97	202	-	-	-	-	-
93264001 Telephones at Vasona	52	256	2	-	-	-	-
93284004 STWTP Treated Water Improv P	8	-	-	-	-	-	-
93284025 STWTP Treatment Improv Stg 1	1	-	-	-	-	-	-
93284028 STWTP Improvement, Stage 2	17,797	2,544	-	-	-	-	-
93284030 STWTP Incompatible Materials	497	1,425	-	-	-	-	-
93284032 WTIP Mitigation at STWTP	474	2,045	-	-	-	-	-
93284033 Telephones at STWTP	207	100	-	-	-	-	-
93294004 RWTP Treated Water Improv Pr	8	-	-	-	-	-	-
93294025 RWTP Treatment Improv Stg 1	1	-	-	-	-	-	-
93294028 RWTP Improvement, Stage 2	2,516	3,708	-	2,369	2,280	24,392	42,354
93294029 RWTP Chemical System	18	200	-	-	390	2,492	-
93294031 RWTP Backup Disinfection	1,519	489	-	-	-	-	-
93294032 RWTP Filter Valve Replacement	0	-	-	-	-	-	-
93294033 RWTP Plant Water System	283	-	-	-	-	-	-
93294035 RWTP Backup Generator Mods	46	1,404	-	48	-	-	-
93294039 WTIP Mitigation at RWTP	1	7	-	-	-	-	93
93294040 Telephones at RWTP	73	234	2	-	-	-	-
93294042 RWTP Control Syst T-Cable	13	258	-	-	-	-	-
93294044 RWTP Caustic Soda Feed Syst	41	1,229	-	-	-	-	-
93404003 Almaden Water Quality Lab	870	16,352	1,882	1,504	-	-	-
93C40085 RWTP Chemical Storage Structure[1.]	-	-	-	-	-	-	-
93C40115 RWTP BL-1 Valve[1.]	-	-	-	-	-	-	-
93C40199 PWTP Washwater Clarification	-	-	-	420	420	4,160	-
Water Treatment SubTotal	**50,812**	**42,395**	**5,236**	**6,916**	**4,670**	**31,183**	**42,447**
ADMINISTRATION AND GENERAL							
00074011 CPS Health & Safety	-	-	179	275	314	292	253
00074012 CPS Labor Collaborative	-	-	97	149	170	158	137
00074030 Workforce & Knowledge Dev	842	1,116	1,469	2,534	2,650	2,707	2,362
00074031 Quality Mgmt for Capital	290	387	231	360	422	394	372
00074032 CEQA Admin	149	141	101	158	185	173	163
00074033 CIP Admin	189	242	257	551	576	588	513
00074034 Construction Mgmt & Admin	378	468	610	952	1,116	1,042	982
00074035 CADD Mgmt & Admin	282	205	278	433	508	474	447
00074036 Survey Mgmt & Admin	252	264	260	405	475	443	418
00074037 Real Estate Mgmt & Admin	14	250	194	302	354	330	312
00074038 Capital Program Mgmt Support	1,729	1,264	1,375	2,147	2,516	2,348	2,214
Small Capital Projects, Facilities	-	-	-	1,258	1,258	1,258	1,258
26074008 EEP Stevens Ck Corridor Restore	-	-	-	141	154	106	-
60204028 Almaden-Seismic Retrofit	-	-	-	2,331	189	-	-
60274054 ISMP CMMS	-	-	-	47	-	-	-
60274056 ERP	-	-	-	110	-	-	-
60274057 ISMP WRIS	-	-	-	553	-	-	-
Administration and General SubTotal	**4,126**	**4,337**	**5,049**	**12,706**	**10,886**	**10,314**	**9,429**
TOTAL	**72,249**	**114,928**	**34,446**	**31,660**	**32,490**	**52,343**	**65,719**

[1.] Appropriations are projected to occur beyond FY 2010–11.

Note: FY 2005–06 Adjusted Budget Includes Carryforward balances remaining from the previous year.

4. FINANCIAL OUTLOOK FOR THE WATER UTILITY ENTERPRISE

INTRODUCTION

The purpose of this section is to describe the short-term and long-term financial requirements for achieving the Board's Ends Policies and to present a funding approach. Section 1 reported the adopted rates for FY 2006–07 and briefly summarized the multi-year projection. Section 4 describes the multi-year financial analysis and the funding approach that serves as the foundation for the adopted rates in each zone. The proposed funding includes a series of increases in water rates in each zone for the next five years in combination with additional debt financing. Appendix B describes the Water Utility revenue sources, cost centers, and reserves as well as Board policy regarding finances.

The Water Utility's revenue requirements remained relatively stable for the period from 1993 to 1998 and rates were held constant. In 1998, the utility made the first of a series of capital investments required to comply with new water quality regulations. The District also invested more in recycled water, water banking, and infrastructure repair and maintenance to improve water supply reliability. More recently, payments for water purchased from the federal government have doubled. Consequently, North County rates have increased from $240 per AF in FY 1997–98 to $435 per AF in FY 2006–07.

In the South County/Coyote Valley, the M&I groundwater rate increased from $108/AF in FY 1997–98 to $230 per AF in FY 2006–07. The increases were necessary due to the higher payments for purchased water from the federal government, expansion of services in the areas of recycled water, water conservation, asset management, security, and groundwater quality management, and maintenance work on facilities and pipelines.

This year's rate projection reflects a range of potential water rates over the next five years depending on the level of service provided. The higher end of the range represents the water rates necessary to fund capital projects and operations costs that have been delayed indefinitely under the rate projection at the low end of the range. The rates adopted for FY 2006-07 are the same as last year's projection at the lower end of the range and will support the operating and capital budget for the water utility. The Water Utility plans to invest nearly $239 million (inflated dollars) in capital improvements from fiscal years 2006–07 to 2010–11.

REVIEW OF DISTRICT'S FINANCES FOR FISCAL YEARS 2004–05, 2005–06, AND 2006–07

The District's financial plans are designed to carry out the direction of the Board's Ends Policies on water supply and quality. The FY 2006–07 budget reflects a decrease in overall spending while moving forward on efforts to maintain or upgrade the District's aging facilities to enable better operations under increasingly stringent public health and environmental requirements.

Table 4-1 shows the revenue requirements that are the basis for the adopted rates, breaking out operations, water purchases, extraordinary items, and capital for fiscal years 2004–05 through 2006–07. The net requirements are the revenues that must be available from water sales, property taxes, and other sources after using debt financing and allowing for funds added to, or used from reserves. Reserves provide a balancing mechanism to smooth fluctuations in the level of revenue that must be raised from water sales in a single year. Appendix B gives a description of each of the Water Utility Reserve Funds. Staff is currently proposing a revision to the reserve policy. A draft of this revision is also included in Appendix B.

TABLE 4-1
Overview of Water Utility Revenue Requirements
($ Millions)

Revenue Requirements	Actual 2004–05	Adjusted Budget 2005–06	Adopted Budget 2006–07
Operations	77.2	79.8	87.0
Debt Service	5.9	6.0	5.5
Water Purchases			
Federal Water	20.6	24.0	23.1
State Water	14.6	15.5	16.9
Extraordinary Items (Includes Advances, Repayments and Transfers)	(3.3)	0.6	0.3
Capital Projects	73.1	103.9	34.4
TOTAL REQUIREMENTS	**188.1**	**229.8**	**167.2**
Increase/(Decrease) in Reserves	(14.4)	(3.8)	3.2
Carryforward Reserves	(39.6)		
Debt Proceeds		(80.4)	(18.0)
Net Requirements From Water Utility Revenues	**134.1**	**145.6**	**152.5**

Fiscal Year 2004–05

Total revenue for FY 2004–05 was $134.1 million, $16.4 million less than projected last year due to lower water demand caused by a wet spring and lower reimbursement revenues than expected. The revenue shortfall was almost entirely offset by lower operations outlays and higher transfers in than anticipated, as well as a reduction in the FY 2004–05 capital budget.

During FY 2004–05, significant operating outlays totaling $30.6 million were made in the following continuing programs:

- $4.7 million for efforts in Water Conservation Program
- $3.5 million for Water Recycling studies, planning, and financial incentives
- $6.3 million for recharge and raw water operations and field facility maintenance
- $13.0 million for General Operations at the three treatment plants
- $3.1 million for Water District laboratory to ensure drinking water quality

Table 4-1 shows extraordinary items reflecting an income of $3.3 million. These items are comprised of a transfer out of $0.2 million for compensated absences, offset by receipts of $2.9 million for an inter-fund loan repayment for the Almaden campus energy project and $0.6 million for a rebate from the Equipment fund. Water purchases totaled $35.2 million and capital projects totaled $73.1 million in FY 2004–05. Reserves decreased by approximately $14.4.

Fiscal Year 2005–06

Operations requirements for FY 2005–06 are budgeted to increase by $2.6 million over actual requirements for FY 2004–05. Budgets increased this year largely for planning of operations, water supply management, environmental compliance, and asset management. Capital appropriations for this fiscal year total $103.9 million. A large share of this cost, $25.5 million, is for the purchase of increased water banking capacity.

Approximately $16.4 million is for the New Water Quality Lab. And, $10.6 million is for further design and construction efforts at the water treatment plants.

Table 4-1 shows that an estimated $84.2 million will come from debt and reserves to fund the capital budget for FY 2005–06.

Revenue for FY 2005–06 is trending slightly below budget and is currently estimated to be roughly $10.8 million below the $145.6 million adjusted budget at year end. This is primarily due to another wet spring, which reduces water demand. Operating costs are estimated to be $10 million to $13 million below budget at year end. These cost savings will offset revenue lost.

Fiscal Year 2006–07

For FY 2006–07, budgeted operations costs are expected to be $7.2 million more than FY 2005–06. The annual operating expenditures are budgeted to increase in FY 2006–07 due to District efforts to: (1) replace or repair relief valves, (2) install automated groundwater level monitoring equipment, (3) repair corroded clarifier mechanisms at RWTP, (4) provide corrosion control for treated water and raw water pipelines, (5) provide confined space and regulatory training for specific staff, (6) obtain consultant services for strengthening regional infrastructure reliability, (7) execute a Health & Safety arc flash remediation study, (8) continue perchlorate remediation in San Martin, and (9) optimize SCADA, electrical and control systems as well as environmental planning and compliance staffing support for operational and capital projects. The cost of water purchased from the federal and state projects continues to be the largest expense item at $23.1 million and $16.9 million, respectively. The combined water purchase costs increased by $0.5 million over the prior year.

In FY 2006–07, the capital appropriation is estimated to be $34.4 million. More than half of this estimate is for the modification of the Lenihan Dam outlet structure.

For FY 2006–07, Table 4-1 shows total requirements of $167.2 million to be met from a combination of current revenues, reserves, and debt. The adopted rates shown in Table 1-1 will generate approximately $124.3 million in revenues from water usage. Property taxes are budgeted to be $20.8 million, and interest earnings and other revenue are estimated to be $7.4 million for total revenues of $152.5 million. The table shows a net increase in reserves of $3.2 million.

Financing and Bond Ratings

The Water Utility plans to issue certificates of participation (COPs) to raise $100 million in financing for the capital improvement plan in FY 2006–07. It will also pay off $82 million in outstanding commercial paper. For the next five years, the District will use debt in conjunction with increasing water rates to meet capital improvement needs totaling $239 million (in inflated dollars) for the five fiscal years 2006–07 though 2010–11.

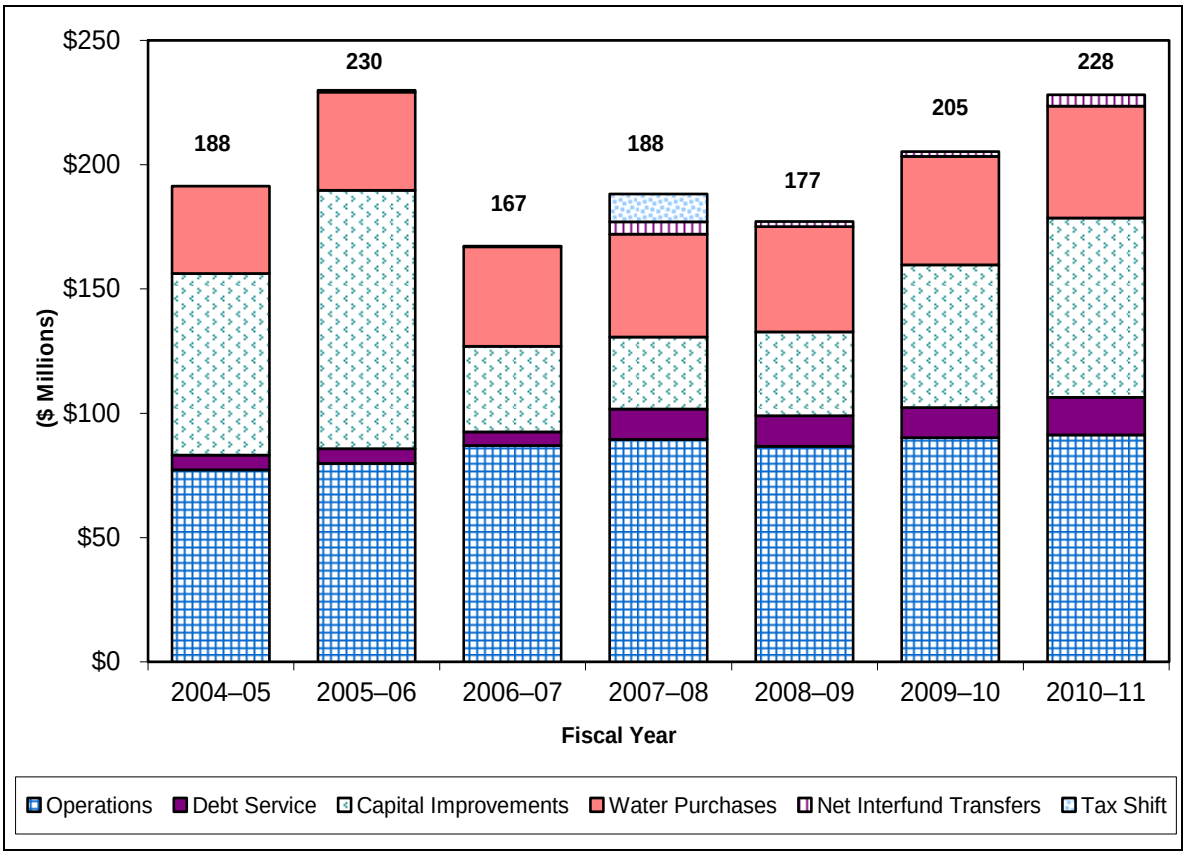
The Water District received ratings of P-1 and A-1+ from Moody's and Standard & Poor's respectively on the issuance of its commercial paper program in 2003. These ratings reflect the District's strong financial position and the highly rated creditworthiness of District issued securities. The ratings are among the highest for a water-related governmental entity in the state of California, which helps keep interest costs borne by the District at a minimum.

OVERVIEW OF LONG-TERM CAPITAL AND OPERATING PLANS

To develop a rate structure that will support planned work, staff analyzes the immediate needs of the District as

well as anticipated requirements in the years to come. The projected outlays for the next five years (see Figure 4-1) include capital and operating costs for the water quality and water supply issues discussed in Section 3. The continuing appropriations for the capital investment needed to comply with water quality regulations can be seen in the capital portion of the bars. As construction of water treatment improvement projects at Penitencia and Santa Teresa water treatment plants begins to taper off by FY 2006–07, asset management costs are anticipated to grow to replace aging equipment and facilities. Costs intended to protect the county's baseline water supply are also expected to increase. In 2009, construction at Rinconada Water Treatment Plant is planned to begin. A detailed listing of funded capital improvement projects is in Table 3-1.

FIGURE 4-1
Water Enterprise Five-Year Program—Projected Uses of Funds



Operations costs are projected to increase at an average of 2.7 percent per year over the next five years, driven mainly by inflation. Debt service is projected to increase by $9 million between FY 2005–06 and FY 2010–11, due to debt financing of the capital improvement program.

LONG-TERM FUNDING APPROACH FOR THE WATER UTILITY

The financial plan for the next five years combines the commercial paper program with current revenues (from water sales), periodic debt issuances, reserves, and other sources to satisfy total expenses each year. The near-term challenge is to provide $239 million (in inflated dollars) for capital facilities and equipment between fiscal years 2006–07 and 2010–11; therefore, short-term and long-term debt financing is planned each year.

Table 4-2 shows the funding sources for capital projects in fiscal years 2005–06 through 2010–11.

TABLE 4-2
Capital Improvement Projects Funding Sources
Fiscal Years 2005–06 Through 2010–11

(Millions of Dollars)

Water Utility Capital Improvement Projects $ Millions	05/06 Adjusted Budget	06/07 Adopted Budget	07/08 Projection	08/09 Projection	09/10 Projection	10/11 Projection
Funding Sources						
Current Revenue (i.e., operating income, operating reserves, and transfers)	19.9	18.7	12.2	18.4	17.2	14.9
Future Year's Capital Reserves	-5.3	-2.3	-1.8	-0.1	0.7	-3.0
CVP Reserves	8.9	0	0	0	0	0
Debt Proceeds	80.4	18.0	18.5	15.5	39.5	60.2
Total Water Utility Capital Improvements Funded (Inflated Dollars)	**103.9**	**34.4**	**28.9**	**33.8**	**57.4**	**72.1**

Figure 4-2 shows the water rate projections that in combination with debt financing will fund revenue requirements to FY 2010–11. This year's rate projection reflects a range of potential water rates over the next five years depending on the level of service that would be provided. The higher end of the range, referred to as the "High Case," represents the water rates necessary to fund capital projects and operations costs that would be delayed indefinitely under the rate projection at the low end of the range. The rates projected along the low end, referred to as the "Low Case," are the same as last year's low-range projection and will support the adopted operating and capital budget for the water utility.

For FY 2006–07, the Board adopted North County and South County/Coyote Valley rates reflected in the Low Case scenario. There are a number of efforts underway that may greatly influence the strategic direction of the District when the outcomes become known. These efforts include:

- Collaborative planning initiatives including the 5-year formal Capital Improvement Plan (CIP) and Comprehensive Water Resources Management Plan
- Resolving the approach to Infrastructure Reliability
- Resolving the approach to address new development
- Results of the Board's Comprehensive Performance Audit
- Impact of internal improvement initiatives including California Awards for Performance Excellence (CAPE), Baldrige, International Organization for Standardization (ISO), etc.

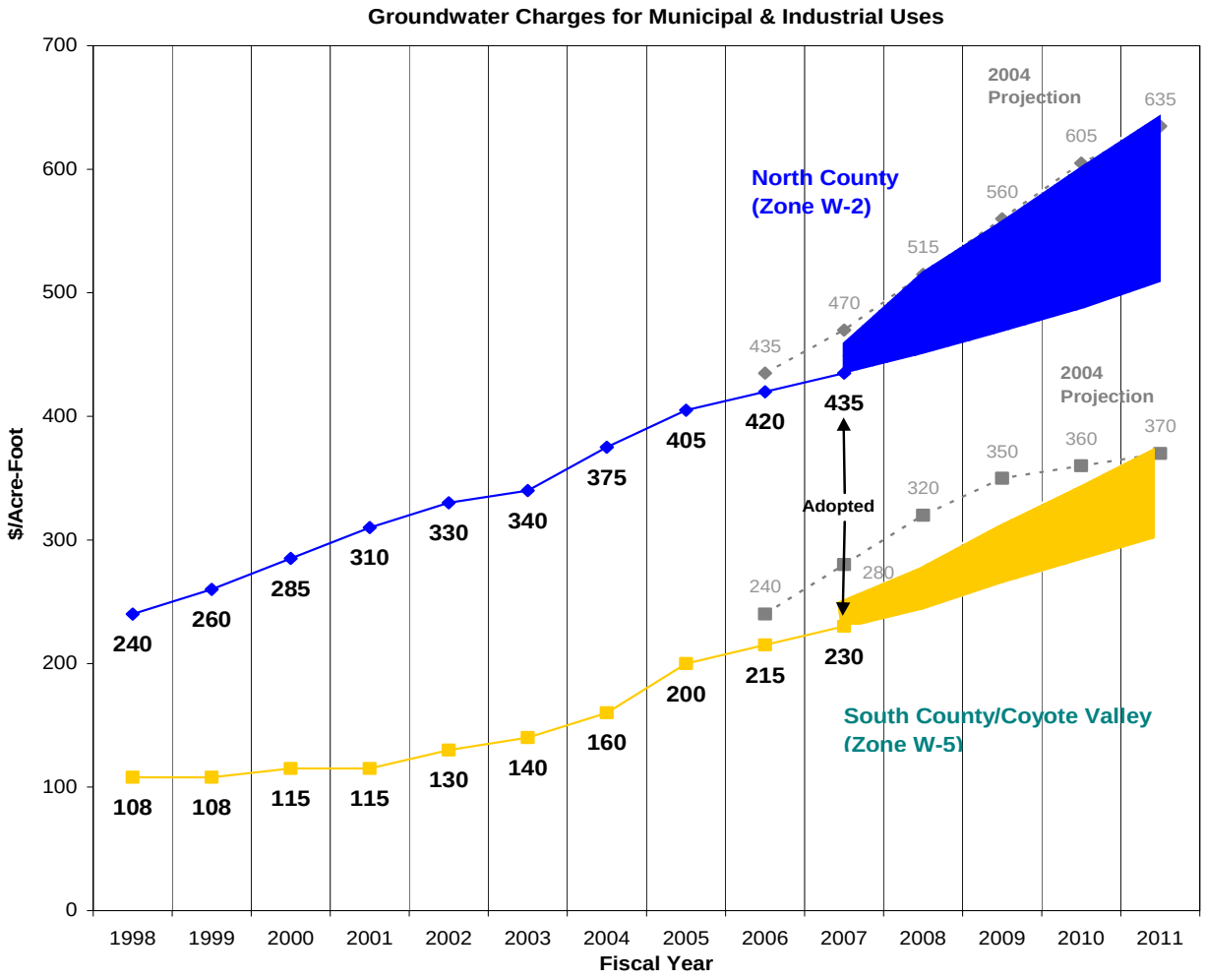
Table 4-3 shows the lower priority capital projects that are not funded in the Low Case projection. The postponed capital projects total approximately $139 million (uninflated) over the next five years. The upper bound of Figure 4-2, or High Case, illustrates the required rate projection necessary to fund the postponed capital projects.

Table 4-4 shows the projected revenues, expenditures, and reserves over the next five years including proceeds from commercial paper and COPs of $80.4 million dollars in FY 2005–06 and $18.0 million in FY 2006–07. By financing with a combination of debt, current year revenue, and reserves, the District is able to meet its capital investment plan. However, reserve funds for the purpose of rate stabilization are projected to remain significantly depleted.

Using currently projected capital appropriations, the District will see debt service rise from $6 million in FY 2005–06 to just over $15 million in FY 2010–11. This increase results from COP and commercial paper

issuances. Total outstanding debt (excluding general obligation bonds) is projected to increase from $136 million in FY 2005–06 to $287 million in FY 2010–11. This outstanding debt could be significantly higher if all programs identified under the High Case were funded.

FIGURE 4-2
Five-Year Rate Projection



Note: Impact of Coyote Valley Specific Plan not included

TABLE 4-3
List of Capital Projects Postponed Indefinitely

($ in Thousands, Uninflated)

Job	FY 05 Budget Basis Actuals	FY06 Adjusted Budget	FY07 Adopted Budget	FY08 Projection	FY09 Projection	FY10 Projection	FY11 Projection
SOURCE OF SUPPLY							
91264001 Vasona Pump Station, Chemical Feed	9	83	-	-	-	-	-
*91864084 Anderson Reservoir Bank Erosion	0	-	-	174	335	2,000	1,666
91C40070 Guadalupe Dam Outlet Works Rehab	-	-	-	-	247	569	621
91C40071 Calero Dam Outlet Works Rehab	-	-	-	-	144	466	341
*91C40105 San Felipe 2002 Inspection Follow-up[1.]	-	-	-	-	-	-	-
*91C40106 South County Pipeline Right of Way	-	-	-	-	238	183	1,278
*91C40107 Pacheco Conduit Bifurcation Dewater[1.]	-	-	-	-	-	-	-
*91C40174 SC Tunnel Leakage	-	-	-	184	41	-	-
*91C40186 So Cnty Recharge Ponds	-	-	-	1,200	500	5,500	13,140
*91C40187 San Luis Low Point Solution	-	-	-	-	-	-	25,000
91C40204 P2 Seismic Study & TP Retrofits	-	-	-	865	1,663	3,325	3,325
91C40205 East-Side Well Field	-	-	-	1,030	1,494	9,184	9,184
91C40206 West-Side Well Field	-	-	-	435	905	846	846
*91C40207 Raw Wtr SCADA Control	-	-	-	-	1,064	-	-
*91C40208 Self-Sufficient SCADA Syst	-	-	-	-	-	1,350	1,350
*91C40218 Gilroy Recycle Wtr PL & Reservoir - Short Term	-	-	-	1,000	3,000	1,500	2,000
*91C40219 Gavilan - Hecker Pass - Scalping Plant - Long Terr	-	-	-	-	-	-	-
91C40220 Additional Line Valves[1.]	-	-	-	-	-	-	-
Source of Supply SubTotal	**9**	**83**	**-**	**4,888**	**9,631**	**24,923**	**58,751**
RAW WATER TRANSMISSION & DISTRIBUTION							
92264008 Vasona Pumping Plant Elec.	6	627	-	-	-	-	-
92534002 Kirk Ditch	2	445	-	664	255	-	-
92724001 Almaden-Calero Canal Rehab	388	495	-	87	600	5,000	900
92C40073 Valve 906 Low-Flow Bypass	-	-	-	109	20	-	-
*92C40158 Church Ave Diversion	-	-	-	1,200	360	1,530	50
92C40173 Coyote PP Adj. Speed Dr. Replace	-	-	-	325	359	455	1,850
92C40196 Kirk Diversion Fish Screen	-	-	-	210	931	-	-
Raw Water T&D SubTotal	**396**	**1,567**	**-**	**2,595**	**2,525**	**6,985**	**2,800**
WATER TREATMENT							
93234034 PWTP Waste Stream Separation	1	334	-	-	-	-	-
93294037 RWTP Waste Stream Separation	4	1	-	-	-	-	99
93294038 RWTP Wast Stream Separation	1	-	-	-	-	-	-
93C40059 RWTP Filter Inlet and Raw Water Inlet Valves	-	-	-	224	896	-	-
93C40060 Treatment Plant Filter Backwash Aid	-	-	-	-	179	207	600
93C40062 STWTP Local Backwash Control	-	-	-	350	-	-	-
93C40084 RWTP Filter Cell Isolation Valves	-	-	-	-	93	270	-
93C40116 Discharge Valves Actuator Replacement[1.]	-	-	-	-	-	-	-
93C40117 RWTP Air Wash System & Backwash Valves[1.]	-	-	-	-	-	-	-
93C40172 TP Electric & Control Systems Improvements	-	-	-	92	204	225	899
Water Treatment SubTotal	**7**	**335**	**-**	**666**	**1,372**	**702**	**1,598**
TREATED WATER TRANSMISSION & DISTRIBUTION							
94374002 RWTP TW Distribution Flow Meter	3	66	-	34	466	-	-
94374003 DHS Compliance, Treated Water PL Mods	412	1,436	-	-	-	-	-
94C40171 Milpitas PL Terminus Valve & Vault	-	-	-	92	102	147	726
Treated Water T&D SubTotal	**415**	**1,501**	**-**	**126**	**568**	**147**	**726**
ADMINISTRATION AND GENERAL							
60204029 Almaden Expansion Projects	-	-	-	493	6,524	3,591	8,505
60274058 EDMS	-	-	-	158	591	-	-
Administration and General SubTotal	**-**	**-**	**-**	**651**	**7,114**	**3,591**	**8,505**
TOTAL	**827**	**3,486**	**-**	**8,926**	**21,210**	**36,348**	**72,380**

[1.] Capital appropriations are projected to occur beyond FY 2010–11.

Note: The asterisked projects would benefit the South County/Coyote Valley and therefore would be funded in part or in whole by the South County/Coyote Valley.

Note: FY 2005–06 Adjusted Budget Includes Carryforward balances remaining from the previous year.

TABLE 4-4
Five-Year Water Utility Plan

($ in Thousands)

	Actual	Adjusted Budget	Adopted Budget	Projected	Projected	Projected	Projected
Revenue Sources:	2004–05	2005–06	2006–07	2007–08	2008–09	2009–2010	2010–11
Groundwater Charges	$40,798	$50,666	$51,515	$53,443	$56,090	$58,994	$61,966
Surface/Reclaimed Water Sales	$814	$1,146	$1,217	$1,272	$1,342	$1,408	$1,475
Treated Water Charges	$63,219	$68,197	$71,597	$73,636	$76,356	$79,075	$81,795
Inter-governmental services	$2,040	$2,545	$2,451	$3,522	$2,916	$938	$1,080
Total Operating Revenue	**$106,870**	**$122,554**	**$126,780**	**$131,873**	**$136,704**	**$140,415**	**$146,316**
Non-Operating Income:							
Property Taxes	$20,085	$18,103	$20,830	$21,459	$22,591	$23,548	$23,693
Interest	$4,028	$2,742	$2,786	$1,239	$1,114	$1,110	$1,160
Capital Contributions	$313	$1,370	$1,839	$2,000	$1,000	$155	$0
Other	$2,757	$832	$266	$4,766	$266	$266	$266
Total Non-Operating Income	$27,184	$23,047	$25,721	$29,464	$24,972	$25,079	$25,119
Total Revenue	**$134,054**	**$145,601**	**$152,500**	**$161,337**	**$161,676**	**$165,494**	**$171,435**
Operating Outlays:							
Operations	$108,493	$113,850	$121,733	$124,569	$122,847	$127,402	$132,270
Operating Projects	$3,880	$5,470	$5,307	$6,289	$6,224	$6,484	$4,125
Debt Service	$5,910	$6,003	$5,491	$12,279	$12,273	$12,094	$15,134
Total Operating Outlays	**$118,283**	**$125,324**	**$132,530**	**$143,136**	**$141,344**	**$145,980**	**$151,529**
Balance Available for Capital and Reserves	**$15,771**	**$20,278**	**$19,970**	**$18,201**	**$20,332**	**$19,514**	**$19,906**
Total Capital Appropriations	**$73,091**	**$103,901**	**$34,445**	**$28,878**	**$33,753**	**$57,377**	**$72,094**
Other Financing Sources/ (Uses):							
Operating Transfers Out - ISMP	$0	$0	$0	($753)	$0	$0	$0
Operating Transfers Out - Other	$598	($300)	$0	$0	$0	$0	$0
Operating Transfers Out - Solar Project	$2,943	$0	$0	$0	$0	$0	$0
Transfer out - comp absences	($173)	($318)	($318)	($337)	($347)	($358)	($369)
Transfer out - Prop Tax Shift	$0	$0	$0	($11,066)	$0	$0	$0
Transfer out - Almaden Campus	$0	$0	$0	($2,473)	($207)	$0	$0
Operating Transfers out - FAHCE	$0	$0	$0	($150)	($168)	($119)	($2,633)
Transfer out - Small Capital Projs	$0	$0	$0	($1,335)	($1,375)	($1,416)	($1,458)
Revenue Bond/CP Proceeds	$0	$80,442	$17,952	$18,525	$15,458	$39,518	$60,196
CVP Reserve Transfer to fund capital							
Total Other Financing Sources/ (Uses)	**$3,368**	**$79,824**	**$17,634**	**$2,412**	**$13,361**	**$37,625**	**$55,736**
Balance Avaliable	**(53,952)**	**(3,799)**	**3,160**	**(8,265)**	**(60)**	**(238)**	**3,547**
Appropriated to/(from) Reserves:							
Operating Reserves:							
Contingency Appropriation	$1,249	$1,232	$1,325	$1,431	$1,413	$1,460	$1,515
Working Capital Appropriation	$10,404	$10,264	$11,044	$11,928	$11,779	$12,165	$12,627
Supplemental Water Supply Appropo.	$589	$589	$589	$589	$589	$589	$589
Rate Stablization Reserve Fund	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
San Felipe Appropriation	$3,227	$3,262	$3,227	$3,227	$3,227	$3,227	$3,227
Environmental Water Account	$921	$921	$921	$921	$921	$921	$921
Total Operating Reserves	**$19,390**	**$19,267**	**$20,106**	**$21,096**	**$20,929**	**$21,362**	**$21,880**
Capital Reserves:							
Designated for Fixed Assets	$882	$882	$882	$882	$882	$882	$882
Designated for Future Years' Capital	$814	$6,072	$8,392	$10,202	$10,310	$9,638	$12,667
Total Capital Reserves	**$1,700**	**$6,958**	**$9,278**	**$11,089**	**$11,196**	**$10,525**	**$13,554**
Reserves for Contingent Liabilities:							
Bureau Repayment Appropriation	$25,000	$16,066	$16,066	$5,000	$5,000	$5,000	$5,000
Total Reserves for Contingent Liabilities	**$25,000**	**$16,066**	**$16,066**	**$5,000**	**$5,000**	**$5,000**	**$5,000**
Total Appropriated to /(from) Reserves	**$46,090**	**$42,291**	**$45,450**	**$37,185**	**$37,125**	**$36,887**	**$40,434**
Debt Service Coverage Ratio - Senior Lien	**4.48**	**5.62**	**5.00**	**2.57**	**3.50**	**3.49**	**3.25**

NORTH COUNTY (ZONE W-2) FINANCES

North County (Water Charge Zone W-2) accounts for approximately 80 percent of District water consumption, but because of higher water rates due to higher North County costs, over 95 percent of the Water Utility's revenue. As shown in Table 1-1, the Board adopted a $435/AF groundwater charge for non-agricultural (M&I) water and $535/AF for contract treated water for FY 2006–07. The Low Case rate projection assumes an average basic user charge increase of 4.0 percent between FY 2006–07 and FY 2010–11. The average increase under the High Case is 9.0 percent, in the same time frame. The adopted rate increase translates to an increase of $0.52 per month for the typical residence using 1500 cubic feet of groundwater per month, and $0.86 per month for a typical residence being served treated water.

This year, the Board decided to reduce North County agricultural rates from $42.00/AF in FY 2005–06 to $21.50/AF in FY 2006–07. This is the level South County/Coyote Valley agricultural rates were in FY 2005–06 and will continue to be in FY 2006–07.

Table 4-5 shows that total North County costs in FY 2006–07 are budgeted to decrease by approximately $65.3 million from FY 2005–06. Capital appropriations are budgeted to decrease by $69.5 million because FY 2006–07 capital expenditures will be funded by that year's appropriations as well as unspent balance that is carried forward from the previous year. The capital program was prioritized to keep the adopted water rate for FY 2006–07 at the level projected last year.

Appropriations for Lenihan Dam Outlet Modifications comprise the bulk of the capital improvement costs for FY 2006–07. The aforementioned issuance of long-term debt is planned in this year to finance the capital program for the next four years and pay down outstanding commercial paper debt.

Operations costs are budgeted to increase by $3.7 million from the prior year driven by critical maintenance needs. Federal imported water payments are projected to stay relatively stable. State water is projected to increase over the previous year generally due to increased power costs.

TABLE 4-5
Overview of North County Finances

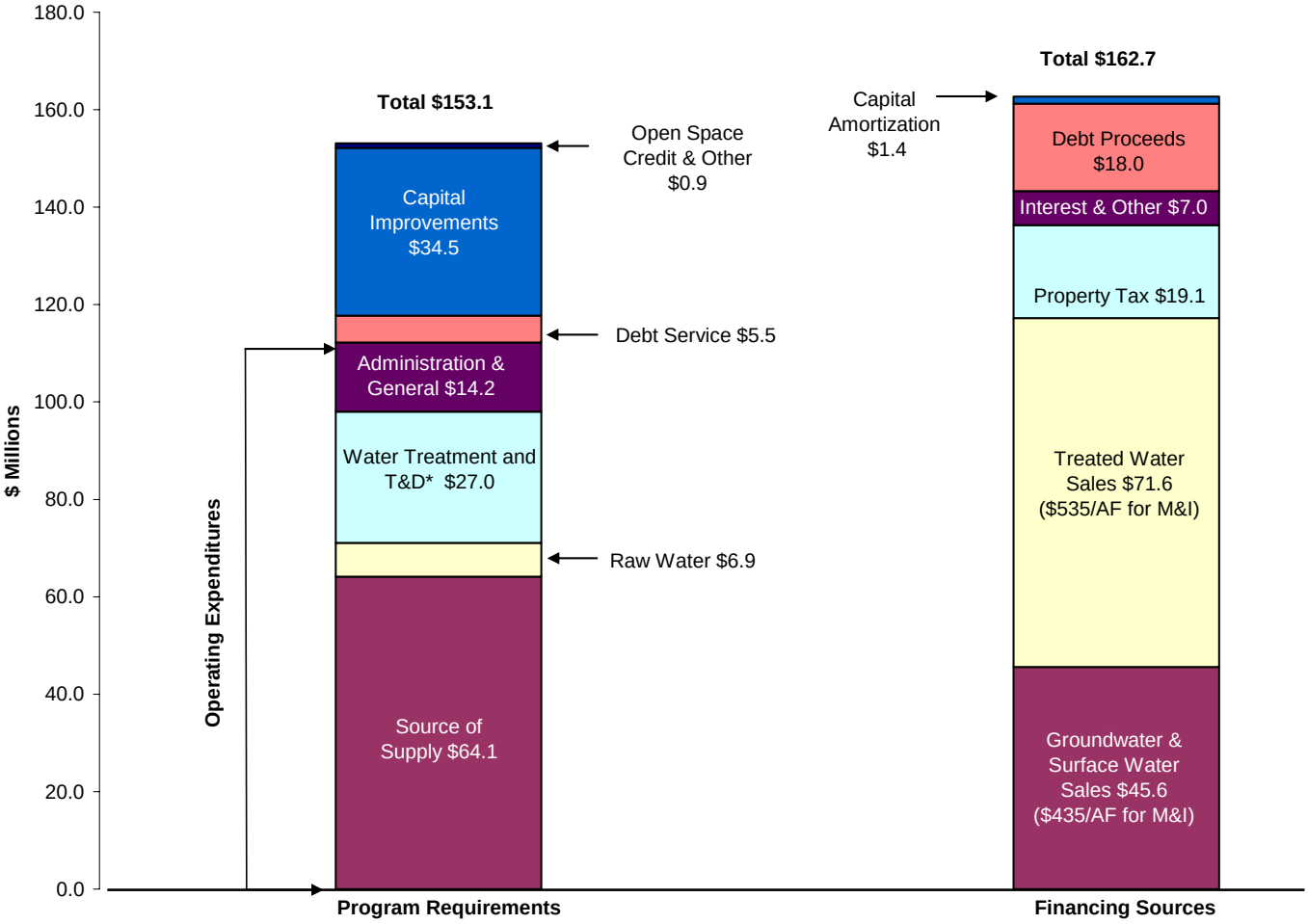
($ Millions)

	Actual 2004–05	Adjusted Budget 2005–06	Adopted Budget 2006–07
Allocated Revenue			
Operating & Non-operating Revenue	$126.85	$135.96	$143.32
Long Term Debt/Other Debt Financing	$0.00	$80.44	$17.95
Capital Amortization from South Co./Coyote Valley	$1.22	$1.22	$1.42
Carryforward Reserves	$39.57		
Total Allocated Revenue	**$167.63**	**$217.62**	**$162.69**
Allocated Costs			
Operation	$75.36	$76.39	$80.05
Imported Water	$33.56	$37.23	$37.66
Capital Improvements	$73.09	$103.90	$34.44
Less Open Space Credit to South/Coyote AG	$0.64	$0.85	$0.94
Total Allocated Costs	**$182.65**	**$218.37**	**$153.10**
North County Surplus (Shortfall)	($15.02)	($0.75)	$9.59

Figure 4-3 shows the relationship between expenditures and the sources of revenue in Zone W-2. The groundwater charges adopted by the Board for FY 2006–07 are necessary to conduct "district activities in the protection and augmentation of the water supplies for users within a zone or zones of the district which are necessary for the public health, welfare, and safety of the people of this state" (District Act, Section 26.3).

FIGURE 4-3
Fiscal Year 2006–07
North County Water Utility Program Requirements and Financing Sources

($ Millions)



*T&D = Transmission and Distribution

SOUTH COUNTY/COYOTE VALLEY (ZONE W-5) FINANCES

Rates in the South County/Coyote Valley (Water Charge Zone W-5) are based on the costs of specific facilities, imported water costs, and operations costs related to managing the groundwater basin, ensuring water quality, and measuring water supplies and usage. Under current policies for managing the finances of South County/Coyote Valley, water rates are set to maintain an approximate balance between revenues and costs. The cumulative balance is tracked, and historically projected water charges have been set to keep the cumulative balance near zero, while maintaining relative stability in South County/Coyote Valley water rates. Successive years of surplus or shortfall can occur, but rates are adjusted only when the trend in the cumulative surplus or shortfall shows a significant imbalance.

For South County/Coyote Valley, the Board adopted a $230/AF groundwater charge for M&I water and $21.50/AF for agricultural water. With these adopted rates for FY 2006–07, costs are estimated to exceed revenues by approximately $1.57 million in FY 2006–07 (see Table 4-6). On a cumulative basis, costs are estimated to exceed revenues by $0.14 million at the end of FY 2006–07 not including the costs of the perchlorate response program.

Water Utility reserves and federal grants will fund the District's perchlorate contamination response program for the South County/Coyote Valley. The program calls for spending $9 million over the next three years in an effort to restore the quality of the groundwater in the Llagas Subbasin. The adopted rates do not include recovery of the perchlorate clean-up program costs. Staff is tracking the costs of the perchlorate response program separately in an effort to obtain full reimbursement from responsible parties. If the District is not successful in obtaining full reimbursement, the cumulative revenue shortfall in South County/Coyote Valley would worsen.

Figure 4-4 shows the projected cumulative revenue shortfall under the Low Case rate projection for South County/Coyote Valley. Under this rate projection, cumulative costs will exceed cumulative revenues and will not be balanced until FY 2014–15. The Low Case rate projection assumes an average increase of 7.2 percent between FY 2006–07 and FY 2010–11. The average increase under the High Case is 11.8 percent, in the same time frame. The adopted rate increase translates to an increase of $0.52 per month for the typical residence using 1500 cubic feet of groundwater per month.

Current Board policy adds an "open space" credit to agricultural revenues. The purpose of the credit is to preserve the open space benefits provided by agricultural lands by keeping agricultural rates low. The credit to agricultural water users in a water charge zone amounts to the difference in revenue from agricultural water use charged at a rate equivalent to 10 percent of the zone's M&I rate and that which would be generated if the agricultural rate were 25 percent of the zone's M&I rate. A Board policy setting the agricultural water charge at one-tenth of the zone's M&I rate was instituted in July 1998 and formally incorporated into the pricing policy in Resolution No. 99-21 (see Appendix B). This year, the Board did not raise rates for agricultural water. The Board decided to maintain South County/Coyote Valley agricultural rates at the same level experienced in FY 2005–06 of $21.50/AF while increasing the open space credit to offset the lost revenue.

As shown in Table 4-6, the Open Space Credit received by the South County/Coyote Valley was $0.64 million in FY 2004–05, estimated at $0.85 million in FY 2005–06, and budgeted to be $0.94 million in FY 2006–07. As the M&I rates for both zones are projected to grow over the next five years, the amount of the Open Space Credit available to support agricultural water revenues will continue to increase.

Figure 4-5 shows the relationship between expenditures and budgeted sources of revenue in South County/Coyote Valley (Zone W-5) for FY 2006–07. The groundwater charges adopted for FY 2006–07 in Zone W-5 are necessary to conduct "district activities in the protection and augmentation of the water supplies for users within a zone or zones of the district which are necessary for the public health, welfare, and safety of the people of this state" (District Act, Section 26.3).

TABLE 4-6
Overview of South County/Coyote Valley Finances

($ Millions)

	Actual 2004-05	Adjusted Budget 2005-06	Adopted Budget 2006-07
Allocated Revenue			
Operating & Non-operating Revenue	$7.21	$8.90	$9.18
Received Open Space Credit from North County	$0.64	$0.85	$0.94
Total Allocated Revenue	**$7.85**	**$9.75**	**$10.12**
Allocated Costs			
Operation	$6.62	$7.75	$7.93
Imported Water	$1.58	$2.28	$2.36
Amortized Capital Improvements	$1.22	$1.22	$1.42
Interest (earned)/due Utility Reserves	($0.11)	($0.06)	($0.02)
Total Allocated Cost	**$9.31**	**$11.19**	**$11.69**
Surplus (Shortfall)	**($1.46)**	**($1.45)**	**($1.57)**
Cumulative Balance	$2.88	$1.43	($0.14)

FIGURE 4-4
South County/Coyote Valley Cumulative Revenue Surplus/Shortfall Projection

($ Thousands)

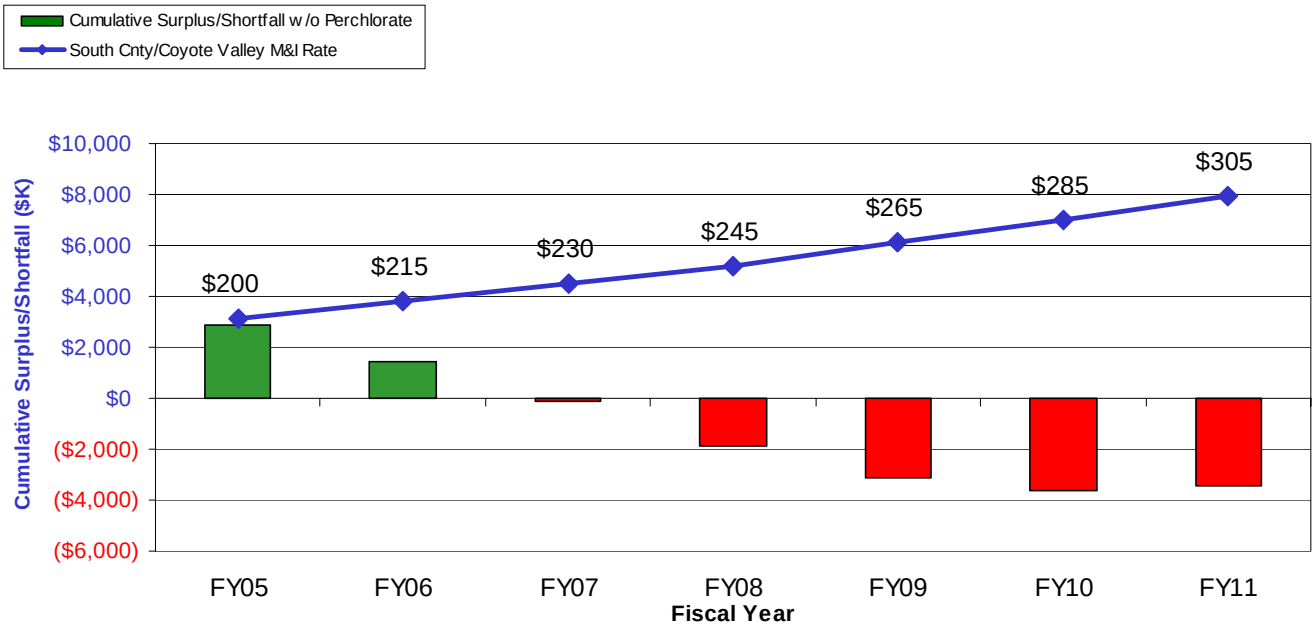
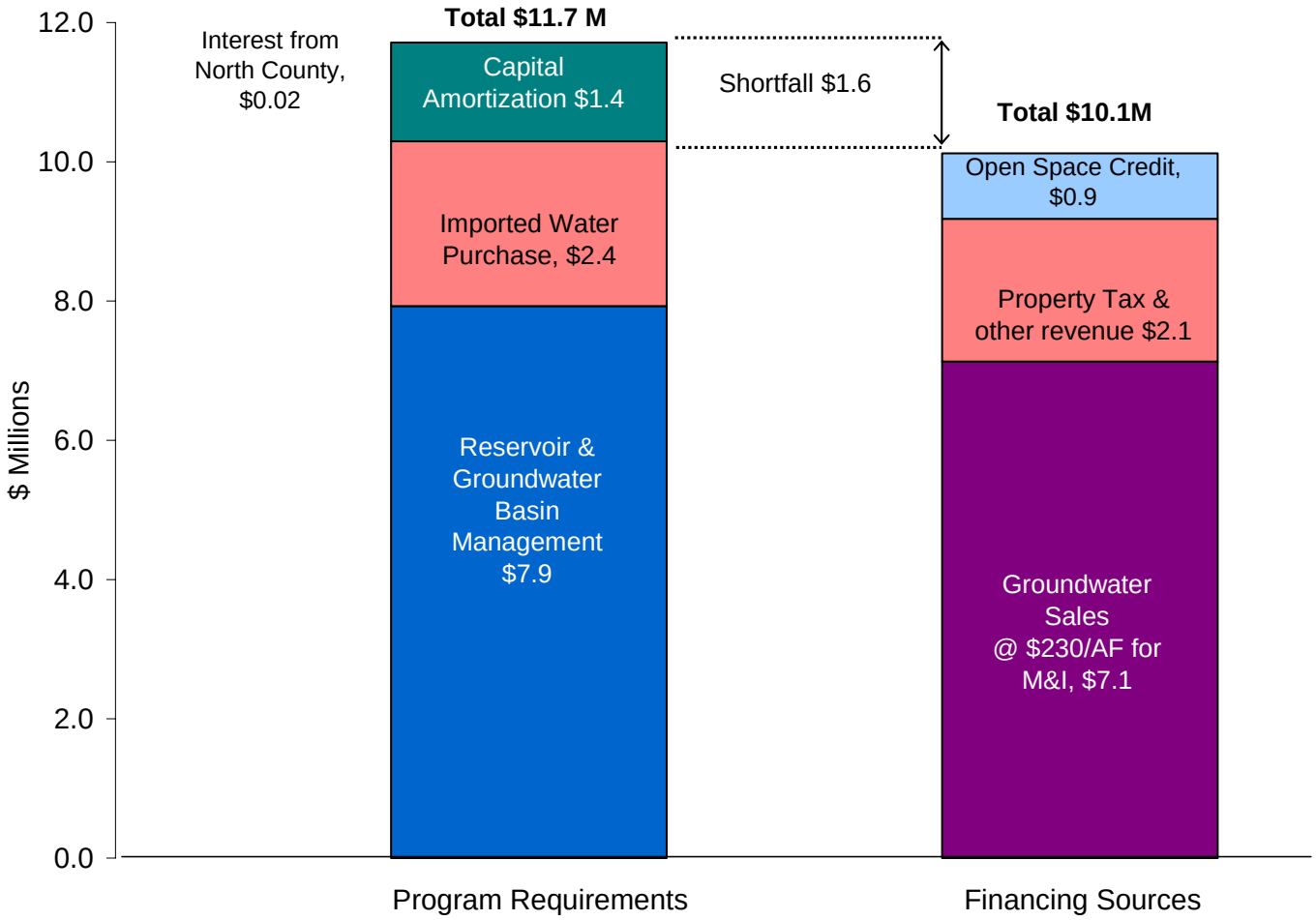


FIGURE 4-5
Fiscal Year 2006–07
South County/Coyote Valley Water Utility Program Requirements and Financing Sources

($ Millions)



Appendix A

WATER UTILITY RATE COMPONENTS AND ADOPTED RATES

TABLE A-1
Adopted Water Rate Components for Fiscal Year 2006–07

Component	Rate ($/AF)
Basic User, Zone W-2 (North County)	
Agricultural	21.50
M&I	435.00
Basic User, Zone W-5 (South County/Coyote Valley)	
Agricultural	21.50
M&I	230.00
Treated Water Surcharge	
Contract	100.00
Noncontract*	60.00
Water Master	11.75
Capital Cost Half Road Lateral System	2.75
Available Agricultural Discounts	
Mobile Lab	3.75
INAAP	3.75

***Note:** Currently, non-contract water is offered only from the Rinconada Water Treatment Plant. The Board adopted this recommendation for FY 2006–07. However, non-contract deliveries will likely be limited during future construction periods.

TABLE A-2
Adopted Water Charges for Fiscal Year 2006–07

Type of Charge	AG Water ($/AF)	M&I Water ($/AF)
Groundwater		
Zone W-2	$21.50	$435.00
Zone W2 with Mobile Lab & INAAP Discounts[1]	$14.00	N/A
Zone W-5	$21.50	$230.00
Zone W5 with Mobile Lab & INAAP Discounts[1]	$14.00	N/A
Surface Water[2]		
Half Road Deliveries[3]	$36.00	$244.50
Other Zone W-5 Deliveries[4]	$33.25	$241.75
Other Zone W-2 Deliveries[5]	$33.25	$446.75
Minimum Charge Zone W-5[6]	$172.50	$172.50
Minimum Charge Zone W-2[7]	$326.25	$326.25
Stored Water		
Zone W-2	$21.50	$435.00
Zone W-5	$21.50	$230.00
Treated Water		
Contract[8]	N/A	$535.00
Noncontract[9]	N/A	$495.00
Recycled Water		
Gilroy	$40.50	$195.00

[1]Agricultural water customers of the district are eligible to receive special discounts on their agricultural water rates for participating in one or both of our water management programs:
- $3.75 per acre-foot special discount for participating in our Mobile Lab evaluation service.
- $3.75 per acre-foot special discount for participating in our Infield Nutrient Assessment Assistance Program (INAAP).

[2]Surface water charge is the sum of the basic user charge plus the water master charge. It also includes the capital cost and power, wherever applicable.

[3]Half Road = Basic User (AG or M&I @ $21.50 or $230.00) + Water Master ($11.75) + Capital ($2.75).

[4]Other Zone W-5 Deliveries = Basic User (AG or M&I @ $21.50 or $230.00) + Water Master ($11.75).

[5]Other Zone W-2 Deliveries = Basic User (AG or M&I @ $21.50 or $435.00) + Water Master ($11.75).

[6]Minimum Charge W-5 = 0.75 X Basic User W-5 (M&I @ $230.00).

[7]Minimum Charge W-2 = 0.75 X Basic User W-2 (M&I @ $435.00).

[8]Treated Water Charge is the sum of Basic User ($435.00) and Treated Water Surcharge ($100.000/AF).

[9]Treated Water charge for noncontract deliveries is offered to all treated water contractors in the Rinconada Water Treatment Plant service area for deliveries from that facility. The charge for non-contract deliveries is the sum of the basic user charge ($435.00) and the treated water surcharge for non-contract water ($60.00/AF).

Appendix B

DESCRIPTION OF WATER UTILITY REVENUE SOURCES, COST CENTERS, AND RESERVES

PRICING POLICY

The District's Board adopted Resolution No. 99-21 updating the Water Utility taxing and pricing policy in March 1999. This pricing policy incorporates four concepts: (1) water pooling, (2) water facilities cost pooling, (3) water resources management, and (4) revenue pooling. The complete policy follows after page B-4. The principal update to the policy in March 1999 was the Board's setting the agricultural water rate at 10 percent of the M&I rate in both Zones W-2 and W-5. Resolution No. 99-21 is included in this appendix.

WATER CHARGES

- Water charges include a **groundwater charge**, which is equivalent to the **basic user charge**, and is associated with the benefit of groundwater supplies. The groundwater charge is applied to water extracted from the groundwater basin in Zones W-2 and W-5, as shown in Appendix C. The basic user charge is applied to other types of water delivered by the District. There are two rates: one for agricultural water and one for M&I water.

- A **treated water surcharge**, which is associated with the benefit of receiving treated water, is levied in addition to the basic user charge on water delivered from the District's water treatment plants.

PROPERTY TAXES

Ad valorem taxes provide revenue to support several benefits which are general in nature serving all or large areas of the county. Some of these benefits are the availability of imported water to the county, recreation associated with the District's reservoirs, and replenishment of the county's groundwater subbasins.

The District receives a portion of the 1 percent countywide tax revenues as allocated by the County Assessor. Tax Zones W-3 and W-4, as well as a countywide ad valorem tax, are part of the 1 percent allocation.

The District also levies additional ad valorem taxes under Article XIII A of the State Constitution to meet: (a) prior approved general obligation bond debt service in Zone W-1 (zones are shown on the map in Appendix C) and (b) part of the contractual obligations for California State Water Project water with a countywide tax.

DEBT FINANCING

To fund the construction of new facilities, the District has historically relied on both pay-as-you-go financing and long-term debt financing from revenue bonds as authorized by the voters in 1977. The last remaining 1977 authorized revenue bonds were sold in April 1984. In January 1984, state legislation allowed the District to seek authorization to issue revenue bonds as needed following the Board's approval. County voters approved this authorization in November 1984. The District sold an additional $30 million of revenue bonds in November 1985 to provide needed funding for ongoing projects. In August 1986, the District refunded all outstanding water revenue bonds. Again, in June 1994, the District took advantage of favorable market conditions to refund the remaining 1986 water revenue bonds. The 1994 refunding totaled $65.9 million at an effective interest rate of 5.2 percent. In December 2000, the District issued tax-exempt and taxable bonds in the amount totaling $60.3 million. In January 2003, the District decided to take advantage of the lower interest rates offered through short-term debt and entered into a $100 million commercial paper program. The District plans to issue certificates of participation in FY 2006–07 in the amount of $100 million.

WATER UTILITY RESERVES

There are multiple reserves designated in the Water Utility Enterprise Fund. Policies and procedures for fund balance reserves, as approved by the District Board of Directors in 2001 can be found on page B-11. A staff-proposed policy can also be found here.

WATER UTILITY ZONES

The major sources of water revenue are from charges levied on all groundwater extracted within Zone W-2 and Zone W-5 of the District and from the sale of approximately 135,000 AF of treated water. Other water charges are made for surface water diversions and sales of recycled water in the Gilroy area. A brief description of each water zone (see Water Utility Zones map in Appendix C) within the Water Utility Enterprise follows:

Zone W-1: Encompasses the groundwater basin in the northern county and small peripheral areas outside the groundwater basin, with the retail service areas of privately-owned public utilities and municipal water departments using water pumped from the groundwater basin. This area provides the security for general obligation bonds. Zone W-1 comprises an area of approximately 290 square miles and includes all or portions of 13 of the county's 15 cities, plus some unincorporated territory.

Zone W-2: Encompasses the Santa Clara Valley groundwater basin north of Metcalf Road. It includes those groundwater producing facilities that benefit from recharge of the basin with local and imported water. A charge is levied for all groundwater extracted from this zone.

Zone W-3: Encompasses the Coyote and Llagas groundwater basins in the area from Metcalf Road in the north to just south of the City of Morgan Hill. Part of the county property tax within the 1 percent limit is allocated to this zone.

Zone W-4: Contains all of Zone W-2 and lands outside Zone W-2 that use or otherwise benefit from locally conserved water and from the importation and distribution of water from the South Bay Aqueduct. This area also receives an allocation of county taxes. These tax revenues are used to pay for the cost of water, recovery of accumulated overdrafts, control of land surface subsidence, and to sustain the emergency supply of water.

Zone W-5: Is comprised of the entire groundwater basin from Metcalf Road south to the Pajaro River. Charges are levied for all groundwater extracted from this zone.

Zone W-6: Represents the former Gavilan Water Conservation District and is within Zone W-5.

WATER UTILITY COST CENTERS

The Source of Supply Cost Center contains all the anticipated expenditures that relate to obtaining, producing, and protecting a water supply and includes all District conservation, recycling, and importation costs.

The Raw Water Transmission and Distribution Cost Center contains all expenditures relating to the distribution of raw water. The distribution system consists of pipelines, canals, and percolation ponds and includes the use of creek systems.

The Water Treatment Cost Center contains all expenditures associated with the treatment of water at the Rinconada Water Treatment Plant, Penitencia Water Treatment Plant, and Santa Teresa Water Treatment Plant.

The Treated Water Transmission and Distribution Cost Center contains all expenditures relating to the distribution of treated water to water utilities and includes costs associated with the treated water reservoirs, pumping plants, pipelines, and turnouts.

The Administration and General Cost Center contains all expenditures of an administrative nature, which are not assigned to one of the other four cost centers. Work performed in this cost center covers items such as the collection of groundwater charges, financial and cash flow studies, annual reports, and general water quality management and resource planning.

Appendix B

RESOLUTION 99-21: ADOPTING "WATER UTILITY TAXING AND PRICING POLICY" AND RESCINDING RESOLUTION NO. 96-82

RESOLUTION NO. 99- 21

ADOPTING "WATER UTILITY TAXING AND PRICING POLICY" AND RESCINDING RESOLUTION NO. 96-82

WHEREAS, the Santa Clara Valley Water District (District) adopted a District mission, goals and objectives on February 19, 1985, in order to conduct a sound water management program that serves the community; and

WHEREAS, the District Act authorizes the District to enter into water sales contracts and to levy and collect taxes and assessments on property within the District and in the respective zones of the District and sets forth requirements for groundwater charges and rates between agricultural and nonagricultural water; and

WHEREAS, several Board resolutions, as identified in Exhibit "A," are related to the management of water resources and the implementation of this water taxing and pricing policy; and

WHEREAS, several changes which affect revenue sources and benefit distribution have occurred since adoption of Resolution No. 96-82. These changes include: (1) passage of Resolution Nos. 98-44 and 98-45 setting agricultural charges for groundwater and surface water at 10 percent of the nonagricultural charges; (2) revisions to the policy governing sale of noncontract water in 1998; (3) pending completion of an agreement to act as the wholesaler to deliver recycled water in South County.

BE IT RESOLVED, by the Board of Directors of the District as follows:

1. **The policy of the District in the areas of taxation and water pricing for water utility revenues shall be and is hereby adopted**:

   Policy Statement

   The intent of this water utility taxing and pricing policy is to provide revenue for the management of water resources and operation of the water utility enterprise. This policy establishes a framework for establishing a system of water charges as permitted by the District Act to meet revenue requirements and to allocate costs amongst the beneficiaries. The general approach is to charge the recipients of the various benefits for the benefits received from the District's comprehensive water utility program.

   The consumptive and nonconsumptive benefits provided by District water supply facilities and operations are listed and described below:

   - Provision of a water supply and effective management of water resources available to the community from a variety of sources of supply, transmission, and water treatment facilities operated by the District.

   - Protection of water quality through the purification and treatment of water and the protection of water supplies.

   - Stewardship of watersheds and riparian corridor.

   - Administration of related programs and projects such as recycled water and water conservation administered solely by the District or in partnership with another organization.

- Ancillary flood protection.
- Recreation, such as fishing, boating, picnicking, hiking, and other related recreation activities.
- Support for the economic well being of the community.
- Protection of the community infrastructure from subsidence.

2. Policy Implementation

The following water taxing and pricing concepts and framework shall be implemented in order to provide for revenue in order to continue providing direct and ancillary benefits to the customers of the District and the community of Santa Clara County.

Water Taxing and Pricing Concepts

- ***Water Pooling***: Water is considered to be a single commodity irrespective of the water's source or cost. It is a single commodity whether it is from water provided locally, imported, or recycled, and all users benefit from the availability of multiple sources of water.
- ***Water Facilities Cost Pooling***: All water supply facilities contribute to the common benefit of effective water resources management. In general, the water charges and property taxes are based on the common benefits of the capital and operations outlays, rather than reference to named facilities, with the exception of the liability for bonded indebtedness which is applied to each zone of benefit.
- ***Water Resources Management***: Water supplies are managed, through taxing and pricing, to obtain the effective utilization of the water resources of the District to the advantage of the present and future populations of the County. This concept provides for development of taxing and pricing structures that will achieve the effective use of available resources and conserve supplies for potential drought conditions.
- ***Revenue Pooling***: For the most part, water utility revenues are collected in a common fund and not designated for a specific cost. Such revenues are available for the general capital and operating outlays of the water utility enterprise. Some revenues such as certain property taxes are specifically designated for debt service and the fixed costs of the State Water Project, and are not available to the common fund. Water charges are established to provide the revenues that are required in the common fund for general capital and operating outlays and that are over and above revenues from ad valorem taxes, interest, and miscellaneous sources. This provides flexibility in managing continuing operations and funding capital outlays.

Water Taxing and Pricing Framework

The following procedures are intended as a general framework to guide staff in the development of a water rate structure implementing this policy:

- ***Zones of Benefit***: Zones of benefit are to be identified and established in accordance with the District Act. Groundwater charges and property taxes are levied for the benefits received by the water users and property owners benefitting from that zone. For each zone, a basic

water user charge is determined for current groundwater and raw surface water users to be applied to the quantities of water used or consumed.

- ***Basic Water Charge Zones***: The objective of establishing various water charge zones is to recover costs for the benefits resulting from conservation, import, and recharge of water which occur only within that zone. Water charges are levied for water producing operations, such as groundwater pumping and raw surface water diversion. In addition, users may be subject to specific charges that meet special needs of a group of users, such as water master charges for surface water deliveries, a capital charge for equipment or facilities, and power costs for pumping.

- ***Treated Water Surcharge***: A treated water surcharge shall be added to the basic water charge for the price of treated surface water delivered by the District. The charge is to be established at an amount that would promote the effective use of available water resources. The charge may differ between treatment plants to better manage regional variations in groundwater conditions.

- ***Costs for Specific Benefits***: Whenever costs associated with specific benefits are clearly and easily measurable, those costs shall be charged to the beneficiaries, in accordance with their specific zones of benefit. Where there is a question as to the identity of the beneficiary or the method of measuring the benefit, the allocation of costs should remain flexible and be determined in accordance with accepted practices and sound judgements based on the four water pricing concepts. The District recognizes and supports the State Legislature's limitation imposed on the District that rates for agricultural water shall not exceed one-fourth of the rate for all water other than agricultural water. In order to encourage the continuance of agricultural use of land in the County, to encourage the preservation of open space, to defer intensification of users and to further support the limitation imposed by the State Legislature, it is the District's policy that rates for agricultural water shall not exceed one-tenth the rate for all water other than agricultural water.

  Both water charges and property taxes are used to recover costs incurred for the benefit of current water users. The costs for future supply sources can be recovered using current revenues or through project specific long-term financing.

- ***Balancing Costs***: The District recognizes that there may be imbalances between revenues and costs within a zone of benefit from year to year. The District will strive to achieve balance over the long-term in accordance with the District Act and to properly charge recipients for the benefits received.

- ***Incentives***: Incentives in the form of subsidies may be provided in order to reduce the price of specific sources of water in order to optimize use of available or future water resources.

- ***Recycled Water***: From time to time, the District may enter into agreements to provide wholesale delivery or other services related to recycled water. The District will strive to recover the costs of these facilities consistent with the pooling concepts outlined above, while adhering to the specifics of any agreement.

3. Executive and Staff Limitations

District staff are authorized to develop a water rate structure which meets the objectives set forth herein, in accordance with the District Act, and using the concepts set forth above. The District's rate structure is implemented only by resolutions approved by the Board of Directors.

Staff is authorized to recommend water charges for consideration by the Board in accordance with the District Act. Water charges, if any, shall be recommended by staff each year be at fixed and uniform rates for agricultural water and for all water other than agricultural water, respectively, except that each such rate for agricultural water shall be one-tenth of the rate for all water other than agricultural water. The Board has determined that agricultural use of lands is of value to the County and the state, and that agricultural lands provide an open space benefit. The Board's limiting staff to a recommendation of agricultural water rates below the maximum allowed by the District Act will benefit water users Countywide, and is necessary to carry out the policies of the State Legislature and the District Board of Directors.

Staff is authorized to prepare, for the Board's consideration, resolutions for the collection of property taxes as needed and authorized under applicable laws.

4. Previous Policy Rescinded

The "Water Taxing and Pricing Policy," adopted by Resolution No. 96-82, is hereby rescinded.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District on March 16, 1999 by the following vote:

AYES: Directors Gross, Zlotnick, Judge, Kamei, Sanchez, Estremera, Wilson

NOES: Directors None

ABSENT: Directors None

SANTA CLARA VALLEY WATER DISTRICT

By: _____
Chair/Board of Directors

ATTEST: LAUREN L. KELLER

_____
Clerk/Board of Directors

RL10455

EXHIBIT "A"

SANTA CLARA VALLEY WATER DISTRICT BOARD RESOLUTIONS USED AS A BASIS FOR WATER TAXING AND PRICING POLICY

Resolution 68-4 to govern the management of its water supply and water facilities so as to equalize the availability of water throughout the District by every means available to it to the fullest extent consistent with equity and sound conservation principles; and

Resolution 71-19 adopting "Water Taxing and Pricing Policy;" and

Resolution 74-28 adopting rules and regulations for the service of surface water and establishing a fee and charge structure; and

Resolution 79-87 providing for water importation tax credits and repealing prior resolution which was adopted November 23, 1964.

Resolution 81-44 declaring policy regarding payment of in-county credit for ensuing fiscal years and that no unit rate is provided for the in-county credit and no payments made from and after fiscal year 1983-1984.

Resolution 90-73 adopting and authorizing the filing and implementation of the Santa Clara Valley Water District Urban Water Management Plan which provides for water conservation efforts which are funded by the District.

Appendix B

SANTA CLARA VALLEY WATER DISTRICT
POLICIES AND PROCEDURES
FINANCIAL SERVICES
FUND BALANCE RESERVES

District Reserves

Overview

Introduction

The following Fund Reserves Policy is established in accordance with the Board's Executive Limitation, EL-5 and 5.3, "With respect to the actual, ongoing financial condition and activities, the CEO/GM shall not cause or allow the development of fiscal jeopardy or a material deviation of actual expenditures from Board priorities established in Ends policies." "Further, without limiting the scope of the foregoing by this enumeration, he or she shall not use any unappropriated long-term reserves or undesignated fund balance."

Based on the CEO's interpretation of the above policy, District Fund Balance Reserve policies and procedures have been developed and outlined herein.

The objective of this policy is to ensure the provision of adequate reserves and to provide guidance for the appropriate accumulation and use of District Reserve Funds. In addition to this policy, both long-term goals and short-term objectives will influence and direct the allocation of annual operating funds for the various reserves. The District classifies reserves as either Operating, Capital, Debt Service, or Funded and Contingent Liabilities.

Purpose

Fund Reserves represent a portion of fund balance that is segregated for a specific future use, or is not available for appropriation or expenditure. Adequate reserve levels are a necessary component of the District's overall financial management strategy and a key factor in external agencies' measurement of the District's financial strength.

General Policies

This policy establishes the purpose and use of such reserve funds, as well as the procedures for funding and maintaining reserves.

- Each fiscal year, the District establishes reserve appropriations necessary to meet its legal covenants, set aside cash to pay expenses prior to the receipt of tax revenues, provide for prudent funding of operating contingencies and contingent liabilities, and sustain its capital improvement program.

- There are four categories of reserves: Operating, Capital, Funded and Contingent Liabilities, and Debt Service

- Reserves are to be fully funded each budget year, or staff will establish an intermediate- and long-term funding plan for the reserve as part of the budget process.

- Budgeted reserves may vary from those of the Comprehensive Annual Financial Report (CAFR) where it is appropriate to recognize actual cash transactions that are recorded in the CAFR as liabilities. Such adjustments include recognizing inter-fund loans, commercial paper financing, and certain accruals as funding sources available for appropriation or as funding uses that reduce funds available for other purposes. These adjustments must be annually reconciled to the audited CAFR.

- Reserve funds will not be spent for any function other than the specific purpose of the reserve from which they are drawn, without explicit Board approval for the exception. All appropriations from reserve accounts require Board approval.

- Debt Service Reserves are administered by debt trustees and set at levels established by loan covenants.

- All remaining reserves shall be reviewed each year by staff to determine reserve level requirement recommendations within guidelines established by this interpretation of Board policy.

Operating Reserves

Contingency Reserves

The appropriations for contingencies are set at a fixed amount at the beginning of the fiscal year to provide for unforeseen needs and emergency appropriations during the year. The appropriated amounts are established as follows:

Water Enterprise Fund: Up to 1% of Budgeted Operating Outlays

District General Fund: Up to 0.5% of Budgeted Operating Outlays

All Other Funds: Up to 1.3% of Budgeted Operating Outlays per each Fund

Working Capital Reserves

This reserve establishes available cash assets from which operating and capital expenditures are made prior to the receipt of revenues for the fiscal year. The budget provides for the following levels of reserve:

Water Enterprise Fund: One month (1/12) of budgeted operating outlays (Required under Water Revenue Bond Resolution 94-58 and the Second Supplemental Resolution No 2000-64)

District General Fund: Up to half (1/2) of estimated property tax revenues

Watershed Funds: Up to half (1/2) of budgeted operating outlays

Other Operating Reserves

The following reserves have been established at contractual or recommended levels appropriate to the specific purpose of each reserve:

Supplemental Water Supply Reserve: This reserve is to provide funding for supplemental water purchases, participation in water banking or conservation opportunities, and other water supply needs. The reserve level should not exceed $11 million, which represents the highest annual amount expended for supplemental water supply needs.

Rate Stabilization Reserve: Reserve established to both 1) mitigate fluctuations in water rates by providing funding during periods of extraordinary operating expense or water revenue shortfalls, and 2) to supplement District revenues to meet debt service coverage requirements. The budgeted reserve levels should not be less than 10% of annual debt service due on all Parity Obligation.

San Felipe Reserve: This is the sum of three reserves established pursuant to the District contracts with the U.S. Bureau of Reclamation for operation and maintenance of the San Felipe Division of the Central

Valley Project. If used, the reserve level must be restored to a minimum of $1.75 million plus accrued interest, and not to exceed $10 million.

Environmental Water Banking Reserve: This reserve provides a mechanism to ensure funds are available to meet financial obligations generated by the agreement between the Department of Water Resources of State of California (DWR), the District, and Kern County Water Agency of 2001 Water Resources for Support of the Environmental Water Account under the CALFED Program. The reserve level should not exceed $15 million, and it is based on revenues or other funding sources received in excess of cost.

Maintenance of Newly Improved Creeks: Clean Safe Creeks and Natural Flood Protection Reserve: This reserve is established to appropriate special tax revenues for future maintenance of the nine flood protection projects approved by the voters. Funds remaining in this reserve at the end of the 15-Year Clean Safe Creeks and Natural Flood Protection Program will be available for maintenance of the creek facilities in subsequent years.

Other Clean Safe Creeks Activities Reserves: This Clean Safe Creeks and Natural Flood Protection Fund reserve is established to appropriate special tax revenues for operating expenditures in future years necessary to accomplish the programs and projects approved by the voters. Funds remaining in this reserve at the end of the 15-Year Clean Safe Creeks and Natural Flood Protection Program will be available for these purposes in subsequent years.

Reserved for Encumbrances: Outstanding encumbered purchases, contracts, and other commitments for which the District bears an obligation are recorded as liabilities. These reservation of Fund Balance and Fund Equity represent funds set aside to ensure payment of the District's liabilities. The reserve's balances are adjusted annually to reflect total obligations at year-end, as per Generally Accepted Accounting Principles reporting requirements.

Capital Reserves

The District currently budgets three types of Capital Reserves.

Capital Replacement Reserves: The purpose of this reserve is to accrue funding for asset purchases and replacement in the period of use. Through this funding reservation, monies are set aside for planned future asset expenditures within specified categories. In addition, this reserve provides a funding source for unplanned asset purchases, and assists with asset management and long-range planning. The reserve level is equal to annual depreciation in each fund.

Future Years' Capital Reserves: This reserve is provided within each Fund in support of future capital needs, as projected in the District's 15-year Capital Improvement Plan. For the Clean, Safe Creeks Program Fund, the remainder of both operating and capital revenues not otherwise re-appropriated to restore the fund's operating reserves to their authorized amounts, are appropriated to this reserve for use in financing projects on a pay-as-you-go basis. For all other funds, Future Years Capital Reserve is funded with the remainder of revenues not otherwise needed to restore all other capital reserves and contingencies to their authorized amounts.

Designated for Current Authorized Projects: This reserve provides for the funding of remaining authorized capital appropriations as of the close of the fiscal year. Capital Projects operate on a multi-year basis; hence all amounts approved but unspent on currently active Capital Projects may carry forward (with the exclusion of unspent labor and benefits) in this reserve until the projects are complete. This is in accordance with the Budget resolution, which provides for reappropriation of prior year, unspent capital budget.

Reserves For Funded and Contingent Liabilities:

These reserve funds are established at recommended levels appropriate to the specific purpose of each reserve, for the purpose of discharging a future contingent liability.

Water Enterprise - Bureau Repayment Reserve: Established by Board policy to provide funding for the District's future contractual liability to the U.S. Bureau of Reclamation, Central Valley Project.

Risk Insurance Reserves: Established by Board policy to fund the District's contingent liabilities for general liability, property damage, and worker's compensation under the District's self-insurance program. The amount of this reserve is reviewed bi-annually under an independent actuarial evaluation.

PERS Stabilization Reserve: This reserve is established to mitigate the escalating costs of employer contributions to the California Public Employees Retirement System (PERS). This reserve is established for FY 2003-04 and FY 2004-05 to appropriate prior year-end salary and other expenditure savings as practicable to be available for use beginning in FY 2005-06 to mitigate substantial PERS employer contribution expenses. In FY 2005-06, this Reserve will be re-evaluated and recommendations will be brought to the Board regarding its future use.

State Budget Impact Reserve: Established in anticipation of a one-time 1% Ad Valorem property tax shift for FY 2004-05 and FY 2005-06 from the District to the Education Revenue Augmentation Fund (ERAF).

Debt Service Reserves:

Debt Service Reserves

Debt Service Reserves are to provide a reservation of funds for current debt service payment on outstanding debt.

Reserves are established in accordance with Bond or Certificate of Participation (COP) resolutions and initially funded from proceeds of the issuance. Each Debt Service Reserve Fund is required to be maintained in accordance with resolution mandates.

Debt Service Reserves are held and administered by the issuance trustee, to be used for payment of the principal and interest in the event that on any payment date the fiscal agent does not receive sufficient installment payments for the District for such purpose.

Appendix B

SANTA CLARA VALLEY WATER DISTRICT
STAFF-PROPOSED REVISION TO RESERVE POLICY

Reserve Policy – Proposed Revision

Please note: Shaded text is old policy language.

The Santa Clara Valley Water District reserves are categorized either as restricted or designated. Designated reserves are further categorized as Operating, Capital, and Contingent Liabilities. The purpose, funding level, and reserve uses are presented below.

RESTRICTED RESERVES:

Debt Service Reserves:
These reserves were established for various bond issues. The funds are not available for general needs of the District and must be maintained as dictated in the bond covenants of the various issues. Not all bond issuances may have all of the following reserves, but the primary debt reserves are: Debt Service Reserve Fund (to fund payments should the District not be able to make its debt service payments due to cash shortfalls), Arbitrage Rebate (to accumulate funds to offset the potential liability from excess earnings) and Debt Service Payment Fund (a pass through reserve for initiating debt service payments).
No prior language.

Debt Proceeds Reserves:
Bond covenants prescribe the use of debt financing proceeds. Debt proceeds typically fund capital projects as described in various bond issues. Debt proceeds, however, are not claimed until project expenses are incurred. Unclaimed debt proceeds are held in trust and identified in Debt Proceeds Reserves.
No prior language.

Water Utility Enterprise – Restricted Operating Reserve:
Revenue Bond covenants for the Water Utility Enterprise require the provision of an Operating Reserve that is only to be used to meet operating needs if there are no other funding sources available. The minimum funding level required by bond covenants is one month of maintenance and operations costs. Any amounts in excess of the minimum are discretionary and therefore held in the Designated Operating Reserve.

Working Capital Reserves: This reserve establishes available cash assets from which operating and capital expenditures are made prior to the receipt of revenues for the fiscal year. The level of the reserve is established based upon the source and timing of the expected receipt of revenues. The budget provides for the following levels of reserve:

- Water Enterprise Fund: One month (1/12) of budgeted operating outlays
  (Required under Water Revenue Bond Resolution 94-58 and the Second Supplemental Resolution No 2000-64)

Water Utility Enterprise – Rate Stabilization Reserve:
Revenue Bond covenants for the Water Utility Enterprise require the provision of a Rate Stabilization Reserve to offset extraordinary expenses and revenue shortfalls, and to supplement District revenues to meet Debt Service Coverage requirements. The minimum funding level required by bond covenants is 10 percent of annual debt service due on all Parity Obligations with the maximum capped at the 20 percent level per this policy. The specific level set within this range is to be financially prudent and based on reasonably anticipatable needs.

- **Rate Stabilization Reserve:** Reserve established to both (1) mitigate fluctuations in water rates by providing funding during periods of extraordinary operating expense or water revenue shortfalls, and (2) to supplement District revenues to meet debt service coverage requirements. The budgeted reserve levels should not be less than 10% of annual debt service due on all Parity Obligation.

Water Utility Enterprise – San Felipe Emergency Reserve:
This reserve is required by District contractual obligations with the U.S. Bureau of Reclamation for the operation and maintenance of the San Felipe Division of the Central Valley Project. The purpose of the reserve is to provide resources for unusual operation and maintenance costs incurred during periods of special stress caused by damaging droughts, storms, earthquakes, floods, or emergencies threatening or causing interruption of water service. Use of this reserve requires authorization by the U.S. Department of the Interior. Per contract, the funding level is accumulated in annual deposits of $200,000 until the reserve totals $1.75 million after which interest earned on the reserve is deposited annually.

- **San Felipe Reserve:** This is the sum of three reserves established pursuant to the District contracts with the U.S. Bureau of Reclamation for operation and maintenance of the San Felipe Division of the Central Valley Project. If used, the reserve level must be restored to a minimum of $1.75 million, and not to exceed $10 million.

Encumbrance Reserves:
These reserves represent the outstanding balances of contractual obligations with outside parties for goods or services that the District intends to honor. These reserves are the funding sources for payments authorized after final acceptance of the goods or services.
No prior language.

Market Valuation Reserves:
The District established Market Valuation Reserves to segregate the value of investment earnings over book value if all investments had been sold on June 30 of the last fiscal year. These reserves do not represent cash available for appropriation. They are used to ensure that a Governmental Accounting Standards Board financial reporting requirement does not result in an overstatement of funding available for expenditure.
No prior language.

DESIGNATED OPERATING RESERVES:

Operating Reserves:
Operating Reserves serve several purposes: to ensure adequate working capital for cash flow needs; to provide a funding source for operating needs that arise during the year and, in the case of the Water Utility, to protect against revenue shortage caused by unusually wet years. The funding range for the Water Utility and the Watershed Funds is a minimum of 10 percent to a maximum of 50 percent of budgeted operating expenses. For the General Fund and Internal Service Funds, the funding range is a minimum of 5 percent to 25 percent of budgeted operating expenditures. The specific level set within these ranges is to be financially prudent and based on reasonably anticipatable needs.

Contingency Reserves: The appropriations for contingencies are set at a fixed amount at the beginning of the fiscal year to provide for unforeseen needs and emergency appropriations during the year. The appropriated amounts for FY 2003-04 are:

- Water Enterprise Fund - One percent (1%) of Budgeted Operating Outlays
- District General Fund - Half percent (0.5%) of Budgeted Operating Outlays
- All Other Funds - 1.3% of Budgeted Operating Outlays per each Fund

Working Capital Reserves: This reserve establishes available cash assets from which operating and capital expenditures are made prior to the receipt of revenues for the fiscal year. The level of the reserve is established based upon the source and timing of the expected receipt of revenues. The budget provides for the following levels of reserve:

- Water Enterprise Fund: One month (1/12) of budgeted operating outlays

(Required under Water Revenue Bond Resolution 94-58 and the Second Supplemental Resolution No 2000-64)

- District General Fund: Up to half (1/2) of estimated property tax revenues
- Watershed Funds: Up to half (1/2) of budgeted operating outlays

Water Banking and Supplemental Water Supply Reserve:
This reserve is to fund purchases of water to augment supplies when needed and to participate in water banking, conservation, or water recycling activities. This reserve will also be used to store revenues and meet obligations from transactions to support the CALFED Environmental Water Account. In addition, this reserve is maintained to supplement revenue losses in the event of a drought. This reserve should be set at a level that represents one year (minimum) to four years (maximum) of supplemental water purchase costs anticipated in a dry year, plus one year (minimum) to five years (maximum) of "take" fees associated with withdrawing banked water under the District's agreement with Semitropic, plus estimated costs to close out agreements under the CALFED Environmental Water Account. Based on current water supply planning for a single dry year, supplemental water purchase costs are estimated at $5 million for 20,000 to 30,000 acre-feet of water, and "take" fees are estimated at $4 million to withdraw the maximum amount in a single year from the bank (roughly 35,000 acre-feet).

- **Supplemental Water Supply Reserve:** This reserve is to provide funding for supplemental water purchases, participation in water banking or conservation opportunities, and other water supply needs. The reserve level should not exceed $11 million.
- **Environmental Water Banking Reserve:** This reserve provides a secure mechanism to make sure funds are available to meet financial obligations generated by the agreement between the Department of Water Resources of State of California (DWR), the District, and Kern County Water Agency of 2001 Water Resources for Support of the Environmental Water Account Under the CALFED Program. The reserve level should not exceed $15 million.

DESIGNATED CAPITAL RESERVES:

Capital Replacement Reserves:
The purpose of this reserve is to provide funding to replace or refurbish District facilities. It can be used to set aside monies for planned future repair and replacement work, to fund unanticipated asset management needs in the current year, or to mitigate large asset management expenditures. This reserve will be set at a level that represents one (minimum) to five (maximum) years of average annual forecasted asset management investment.

- **Capital Replacement Reserves:** The purpose of this reserve is to accrue funding for asset purchases and replacement in the period of use. Through this funding reservation, monies are set aside for planned future asset expenditures within specified categories. In addition, this reserve provides a funding source for unanticipated asset needs, mitigates the impact of large budget expenditures, and assists with asset management and long-range planning. The reserve level is equal to annual depreciation in each fund.

Currently Authorized Projects Reserve:
District policy provides for annual re-appropriation of unspent, unencumbered capital project balances. The Currently Authorized Projects Reserves are used to account for these funds. The funding level for these reserves are based on the year-end capital project balances that will be re-appropriated to the same capital projects at the start of the next fiscal year.
No prior language.

Future Years' Capital Reserves:
The District uses three primary funding vehicles for capital project financing: debt financing, pay-as-you-go, and save-until-you-can-pay. Future Years' Capital Reserves primarily represent current funding accumulated for future year capital projects identified in the District's Capital Improvement Program. These reserves also may be used for unanticipated current year capital project changes. The funding level is set based on remaining available resources after operating and contingency needs have been met and Currently Authorized Projects Reserves have been funded.

- **Future Years' Capital Reserves:** This reserve is provided within each Fund in support of future capital needs, as projected in the District's 15-year Capital Improvement Plan. For the Clean, Safe Creeks Program Fund, the remainder of both operating and capital revenues not otherwise re-appropriated to restore the fund's operating reserves to their authorized amounts, are appropriated to this reserve for use in financing projects on a pay-as-you-go basis. For all other funds, Future Years Capital Reserve balance is the accumulated remainder of revenues not otherwise re-appropriated to restore all capital reserves and contingencies to their authorized amounts.

DESIGNATED LIABILITY AND OTHER RESERVES:

Water Utility Enterprise – Bureau Repayment Reserve:
Established by Board policy to provide funding for the District's future contractual liability to the U.S. Bureau of Reclamation, Central Valley Project.

- **Water Enterprise - Bureau Repayment Reserve:** Established by Board policy to provide funding for the District's future contractual liability to the U.S. Bureau of Reclamation, Central Valley Project.

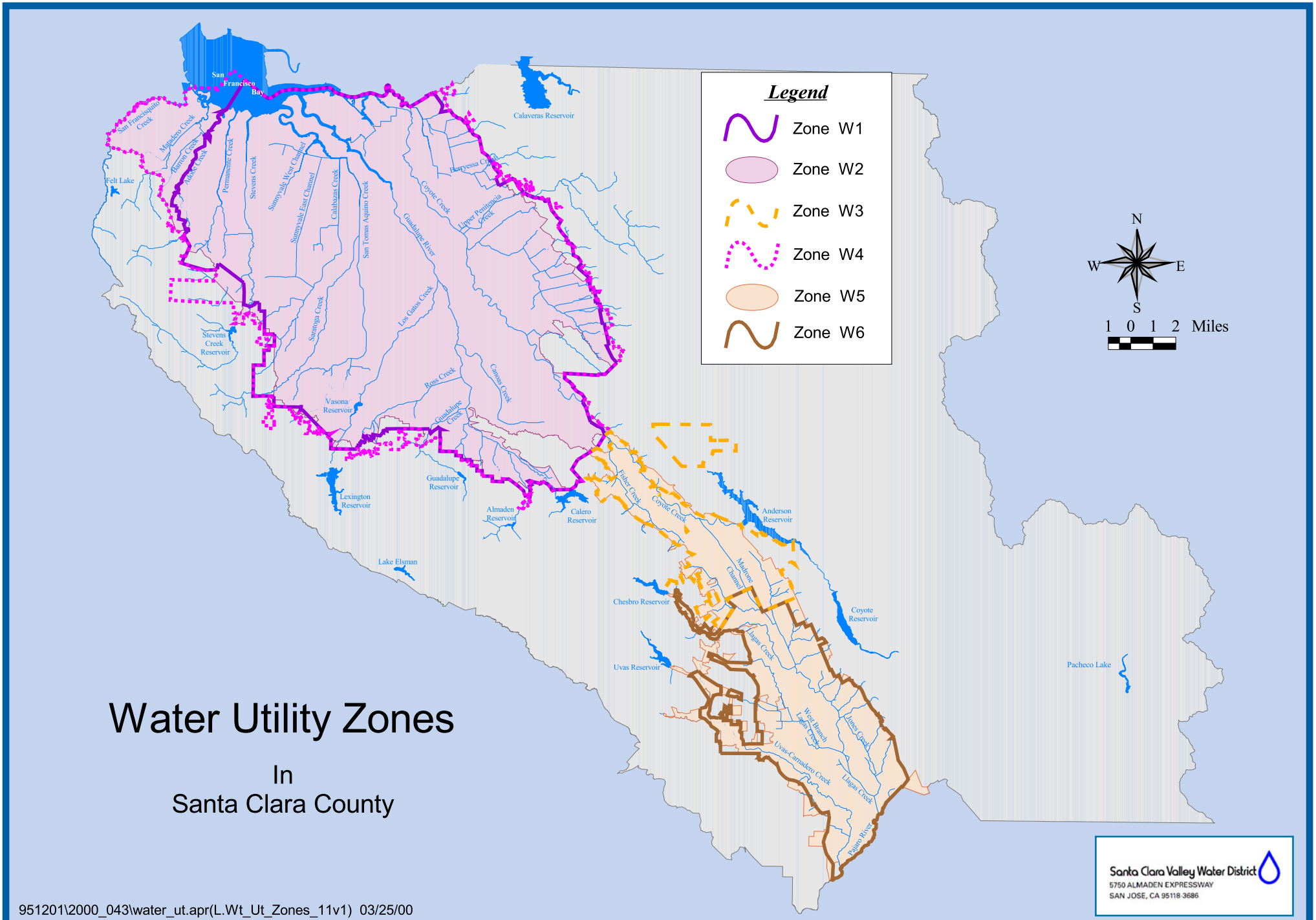
Appendix C

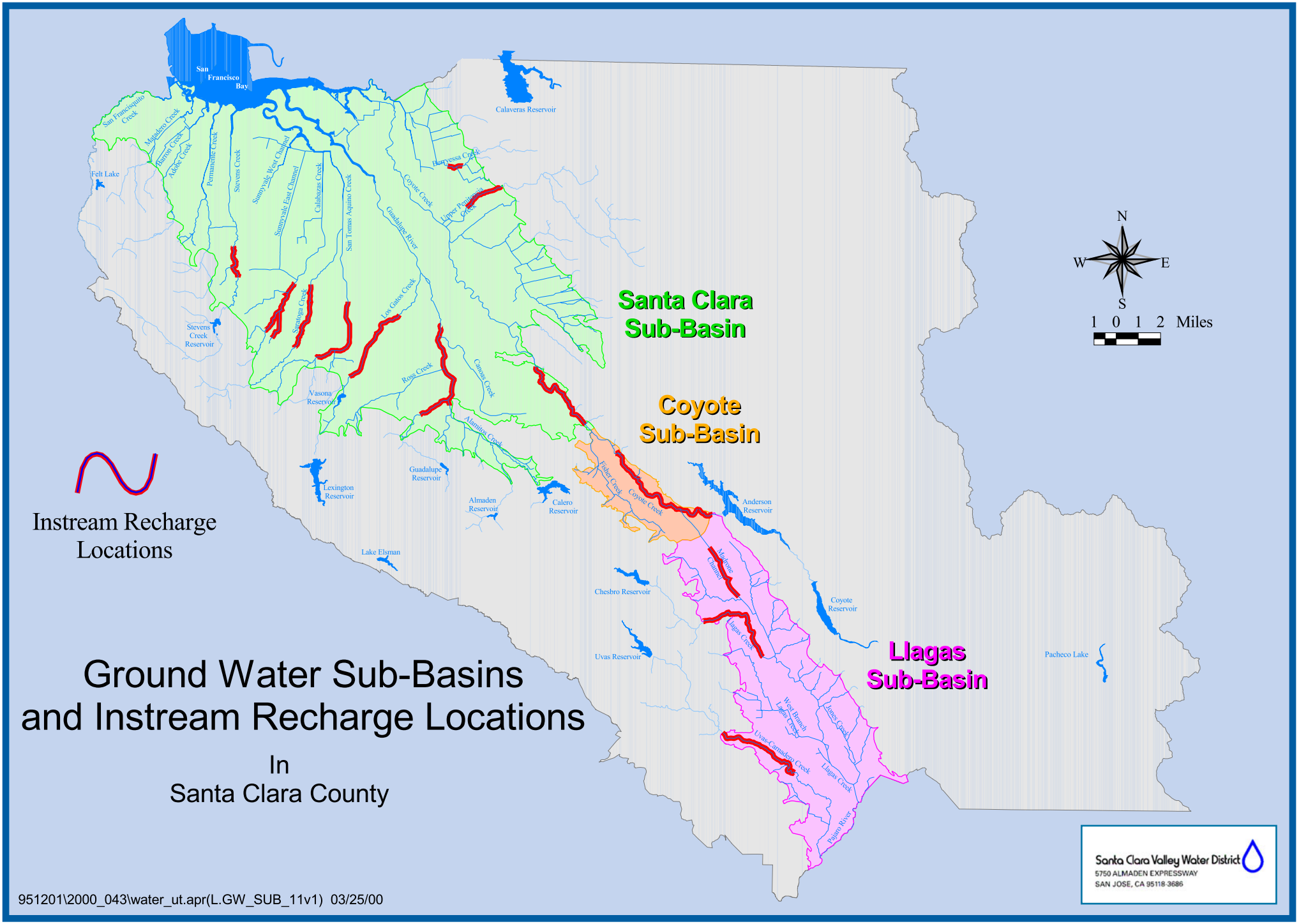
ACRONYMS AND MAPS

ACRONYMS

ABAG	Association of Bay Area Governments
AF	Acre Feet
AG	Agricultural
BAWAC	Bay Area Water Agencies Coalition
BAWSCA	Bay Area Water Supply and Conservation Agency
BMP	Best Management Practices
CAPE	California Awards for Performance Excellence
CIP	Capital Improvement Plan
COP	Certificate of Participation
CPS	Capital Programs Services
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
DSOD	Division of Safety of Dams (California)
DWR	Department of Water Resources
EDMS	Electronic Document Management System
ET	Evapotranspiration
EWA	Environmental Water Account
FAHCE	Fisheries and Aquatic Habitat Collaborative Effort
FY	Fiscal Year
GRU	Government Relations Unit
HAZMAT	Hazardous Materials
HCP/NCCP	Habitat Conservation Plan/National Communities Conservation Plan
HET	High Efficiency Toilet
INAAP	In-field Nutrient Assessment Assistance Program
ISO	International Organization for Standardization
IWRP	Integrated Water Resources Plan
LFRO	Low-fouling Reverse Osmosis
LUSTOP	Leaking Underground Storage Tank Oversight Program
M&I	Municipal and Industrial
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
PCE	Perchloroethylene
PVWMA	Pajaro Valley Water Management Agency
PWTP	Penitencia Water Treatment Plant
RWQCB	Regional Water Quality Control Board
RWTP	Rinconada Water Treatment Plant
SBCWD	San Benito County Water District
SCRWA	South County Regional Wastewater Authority
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SFPUC	San Francisco Public Utility Commission
STWTP	Santa Teresa Water Treatment Plant
SWP	State Water Project
T&D	Transmission and Distribution
ULFT	Ultra-low-flush Toilets
USBR	United State Bureau of Reclamation
UWMP	Urban Water Management Plan
UST	Underground Storage Tank
WET	Water Efficient Technologies
WTP	Water Treatment Plant

THIS PAGE OMITTED FROM ON-LINE REPORT


Legend
Zone W1
Zone W2
Zone W3
Zone W4
Zone W5
Zone W6
N
W
E
S
1 0 1 2 Miles
San Francisco Bay
Calaveras Reservoir
Felt Lake
Stevens Creek Reservoir
Vasona Reservoir
Lexington Reservoir
Guadalupe Reservoir
Almaden Reservoir
Calero Reservoir
Lake Elsman
Anderson Reservoir
Chesbro Reservoir
Coyote Reservoir
Uvas Reservoir
Pacheco Lake
Water Utility Zones
In
Santa Clara County
951201\2000_043\water_ut.apr(L.Wt_Ut_Zones_11v1) 03/25/00
Santa Clara Valley Water District
5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686


San Francisco Bay
Calaveras Reservoir
Felt Lake
Stevens Creek Reservoir
Vasona Reservoir
Lexington Reservoir
Guadalupe Reservoir
Almaden Reservoir
Calero Reservoir
Lake Elsman
Chesbro Reservoir
Uvas Reservoir
Anderson Reservoir
Coyote Reservoir
Pacheco Lake
Santa Clara Sub-Basin
Coyote Sub-Basin
Llagas Sub-Basin
N
W
E
S
1 0 1 2 Miles
Instream Recharge Locations
Ground Water Sub-Basins and Instream Recharge Locations
In
Santa Clara County
Santa Clara Valley Water District
5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
951201\2000_043\water_ut.apr(L.GW_SUB_11v1) 03/25/00